

MRC Digital Advertising Auction Transparency Standards

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Steer Team associations:

Media Rating Council (MRC)
Omnicom (Steer Team Lead)
Association of National Advertisers (ANA)
World Federation of Advertisers (WFA)
Advertising Agency Association of America (4A's)
Interactive Advertising Bureau Tech Lab (IAB Tech Lab)



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1 Executive Summary

1.1 Overview and Scope

This document represents the Media Rating Council's (MRC's) effort to set standards for transparency, disclosure and reporting of various aspects and results of digital advertising auctions (including but not limited to display, text, video and audio formats within digital, search, social, retail media, streaming CTV and addressable TV channels) as part of its ongoing effort to develop standards for media measurement.

In simplest terms, an ad auction is a system that determines the pricing and allocation of an ad placement based on a competitive bidding process. When a consumer takes an action, such as conducting an online search, visiting a website, using an app, or watching streaming TV, this may generate an ad impression opportunity. Media sellers then put that impression opportunity up for auction. Advertisers compete for these ad impressions by bidding for them using ad buying software, and the seller's ad auction determines which advertisers win (allocation) and how much they pay (pricing). **These are the two core functions of an auction: allocation and pricing.**

Typically, the auctioneer evaluates advertiser bids based on the bid amount, ad relevance, ad quality, and other factors. Generally speaking, the highest-ranking ad based on these factors gets served to the user at a price determined by bid amounts and auction rules. The whole process, from consumer action to advertiser bids, to selection of winners and serving of an ad, typically occurs in less than 0.1 seconds.

When implemented in a fair and transparent way, ad auctions have the unique ability to maximize value for advertisers, media sellers, and consumers alike:

- Consumers: serving them an ad with the greatest relevance from the most interested advertiser
- Advertisers: serving their ad at a fair price to the consumer most likely to be interested in their product or service, real-time price discovery
- Sellers: clearing 100% of their available inventory at a fair price, real-time price discovery

Because of these intrinsic benefits, hundreds of billions of ad impressions are auctioned, sold and delivered around the world every day of the year. The vast majority of auction-based media spend is now bought and sold through "closed-loop" auctions (all functions hosted entirely by platform ad auctioneers) across channels like Search, Social, and Retail. Each of these platforms has their own proprietary auction system and participants in these systems may have limited information regarding how these auctions operate. In parallel, a significant but smaller portion

of ad auctions occur in the “programmatic” ecosystem, characterized by utilization of the OpenRTB standard.

It falls to advertisers and their agents to determine and implement an approach to bidding in these ad auctions, or a “bid strategy”. Bid strategies are devised based on the understood rules of an auction system. For example, a bid strategy that is ideal for a first-price auction is suboptimal for a second-price auction. This is where a lack of information may present risks: if advertisers believe they are bidding into one sort of auction, but are in fact bidding into another sort altogether, the auction stops working well.

Despite the growth and diversity of ad auctions in media, there were previously no standards for Ad Auctioneer conduct regarding disclosure and reporting of auction rules or transparency into auction processes and outcomes. **It is the objective of these Standards to promote transparency around auction rules and scoring along with reporting and standardization where possible and appropriate, to ensure that auction rules and outcomes are understood for all parties.**

This effort is not aimed at any one platform, ad auctioneer or auction type. The intent of these Standards is not to replace or alter existing industry protocols such as OpenRTB to communicate auction information, but to supplement them with guidance regarding methods disclosures and outcome reporting. MRC does not intend to stipulate or standardize the design of any auction type, as auctioneer companies can and should design auction systems to best suit the particular characteristics of a given media form. Rather, these Standards seek to stipulate requirements and guidance to ensure that auctioneers clearly explain to advertisers how their auctions determine pricing and allocation, and provide accountability via reporting so that auction participants can validate the same.

Further, these Standards seek to stipulate that auctioneers clearly disclose changes in procedures, including changes to the rules of the auction, in advance of such changes being implemented, and accompanied by an assessment of the impact the change will have on participants in the auction. In addition, these Standards aim to ensure auction participants generally understand the results of auctions well enough to adjust bid strategies in a way that may impact their results.

Finally, these Standards were created with the intent that auctioneers should conform to a set of standards governing the conduct and associated reporting of ad auctions, and voluntarily submit to audits that confirm they are in compliance. It should be noted that while submission to MRC accreditation audit is voluntary, in order to achieve accreditation against these Standards, various aspects of these Standards are required and will be directly assessed (including directly auditing operational effectiveness of defined policies and practices) as part of substantive independent audits.

1.2 Standards Development Method and Objectives

The Standards contained in this document originated from a project led by the Media Rating Council (MRC) based on project initiation from Omnicom with sponsorship from the American Association of Advertising Agencies (4A's), the Association of National Advertisers (ANA), World Federation of Advertisers (WFA) and the Interactive Advertising Bureau (IAB) Tech Lab as well as Omnicom. These Standards were developed with the participation of a large tripartite group of media content providers, advertising agencies, advertisers, vendors/consultants, ad auctioneers, measurement organizations and other interested organizations. These Standards involved the participation of major buyer-side trade organizations (4As, ANA, WFA) and their constituents and were thereafter provided to the public through a formal period of public comment prior to adoption.

The final Standard is to be published and available on the MRC website and will be re-assessed periodically to ensure it remains applicable over time.

Objectives

The objectives of this effort were to produce a Standards Framework of auditable requirements, best practices and guidance for the conduct of digital ad auctions including disclosure of models employed, rules for scoring creatives and determining outcomes of auctions in the context of standard and consistent support, quality, rigor, measurement, transparency and reporting. This Standards Framework is intended to enable MRC auditing of operators of digital auction systems that voluntarily submit to the MRC process, for compliance assessment and MRC member review.

To accomplish these objectives, as part of the initial project phase, the MRC and the Standards Steer Team (recognized at the conclusion of this document) undertook research efforts to delineate the various auction models and rules currently employed across the industry. These research efforts also assessed current disclosures and reporting related to these auctions to provide a more complete view of the current state of auction systems, highlight common practices, further explore key differences and begin identifying specific best practices to inform the need for standardized approaches and reporting by ad auctioneers. This involved requests for information from ad auctioneers, several of whom provided confidential details and data to the Steer Team for review and aggregated summary to the broader working group. The type of information MRC gathered as part of this initial phase included, but was not limited to, the following (as reviewed and agreed to by the working group including considering the input of auction participants):

- Type(s) of auction system(s) used at present.
- How winners of auctions are determined.
- After the winners of an auction have been determined, how prices that winners must pay are set.
- Use of reserve prices and methods to update them over time.

- Use of advance information about bids and budgets to adjust the functioning of the auction process and how this is updated over time.
- How often rules of the auction system are updated and disclosed to auction participants.
- What information is presently disclosed or reported about the auction system and the outcome of auctions.
- Perspective on the creation of industry standards around the conduct and reporting of ad auctions. Challenges, issues, best practices and opportunities.
- Perspective on participating in independent auction auditing processes.

The output of this initial research phase served as an input into subsequent phases to develop common practices and disclosures as well as to ultimately create this Standards Framework for independent audit and verification that was reviewed and contributed to by a broader working group.

These efforts involved regular meetings of the Steer Team and periodic meetings of a large working group to further specify scope and objectives as well as efforts to invite the participation of purveyors of major auction systems to contribute information regarding their current practices followed by efforts to analyze, organize and present this information in the form of industry thought leadership, guidance and the compliance framework herein.

2 General Requirements

2.1 Organizational Structure and Auction Administration (All Ad Auctioneers)

2.1.1 Auction Oversight

These Standards encourage the establishment of a dedicated team or specific personnel responsible for supporting and overseeing the auction process including adherence to policies, performance, changes and disclosures/communication. Further, where possible, it is recommended that this team or another dedicated function is responsible for overseeing traffic quality and inventory supply.

At minimum, formalized responsibility for auction integrity within the auctioneer organization, including a designated contact for auction participants is required.

2.1.2 Auction Participant Qualification

In general, auction systems may have established onboarding requirements for auction participants including contractual terms related to legal, ethical, regulatory, privacy and policy requirements. Auction participants could be buyers looking to advertise through the auction system or sellers looking to make inventory available through it.

At minimum, auction participant qualification policies are required to be documented and made known to auction participants. Further, some level of verification (risk based) is required to be conducted to confirm compliance with these policies, initially and periodically (perhaps on

a sample basis). These participant qualification policies are also required to align and adhere to Business Partner Qualification requirements detailed in MRC's *Invalid Traffic Detection and Filtration Standards Addendum* which include legitimacy and legality considerations.

Finally, defined processes to address policy violations and resulting actions taken are required. The Auction Oversight function is required to oversee this.

2.1.3 Creative Qualification

Auction systems may have various requirements for creatives as well as policies governing the creatives permissible for auction, but may also offer self-serve creative functions where auction participants create campaigns directly. These requirements may include permissible formats, sizes, safety, source code, tagging, external links, redirects, etc.

Where possible, there must be minimum, defined, documented and disclosed (to auction participants) requirements for enforcement of creative policies especially through direct self-serve tools, such as logical restrictions on creative parameters out of policy (preventing campaigns that include creatives that violate stated policies), automated creative scanning and/or sample-based checks/tests including verifying the creative in relation to the buyer. Defined processes to address requirements violations and resulting actions taken, as well as clear disclosures of the same are required.

Further, this Standard encourages ad auctioneer use of standardized industry creative format and ID frameworks, such as Ad-ID and the IAB Tech Lab's Ad Creative ID Framework (ACIF), which involves ad registries for consistent identification of ad creative in the supply chain. Use of such frameworks should be disclosed by ad auctioneers and subject to the creative qualification enforcement requirements above.

2.1.4 Supply Qualification

Auction systems may include various requirements for supply sources which may vary by whether the supply source is Owned and Operated (O&O) or Third-Party (3P). Some of this may be activated with vendor tools for measurement and verification. Supply qualification considerations may include Invalid Traffic (IVT), Brand Safety, resellers, referrers and sourced traffic disclosures.

There should be defined, documented and disclosed (to auction participants) requirements for enforcement of policies for inventory/supply source quality through validated (such as MRC accreditation and other industry certification) measurement. Defined processes to address requirements violations and resulting actions taken are also required to be and the Auction Oversight function is required to oversee this.

Further, these Standards encourage Third-Party measurement where possible including MRC accredited IVT and Content Level Brand Safety measurement (and possible future Made for Arbitrage/MFA or carbon considerations) on a pre and post basis as well as compliance with

industry transparency efforts such as ads/app.txt, authorized resellers, referrers and traffic sourcing declarations, etc. Pre-bid qualification, including evaluation of bid requests, based on quality, IVT or buyer defined parameters, is encouraged.

Ad delivery and activity measurement that may be provided by ad auctioneers or 3P measurement vendors inclusive of impressions, clicks, viewability, IVT, audience, brand safety and other metrics should adhere to IAB and MRC Guidelines and Standards for measurement where applicable and are encouraged to be subject to independent validation through MRC accreditation audit. Further, bid information discussed throughout this Standard, including relevant OpenRTB objects, is strongly encouraged to be made available to third-party measurement providers where possible to enable independent measurement and reporting.

2.1.5 Regulatory and Privacy Compliance

Ad auctioneers and measurement organizations may be subject to various regulatory requirements including privacy as well as other legal transparency and reporting requirements. **These standards are not intended to directly satisfy any regulatory or legal obligations.** MRC's position is that such regulations are not a barrier to be engineered around, but hard and fast requirements that must be adhered to and that must be considered when designing measurement methodologies and related practices. These Standards are not intended to, and do not provide ad auctioneers or measurers with reasons or permission to deviate from such regulatory requirements. While MRC's requirements and related auditing is not intended to directly assess such regulatory compliance, along with the general principles discussed in this document, processes and practices should adhere to applicable regulations and requirements. Should MRC or its auditors observe illegal activity through audit processes, it is our collective duty to report it to the appropriate authority.

Ad auctioneers and measurement organizations are encouraged to consider and comply with additional industry and regulatory guidelines and requirements where applicable.

2.2 OpenRTB Ad Auctioneers

2.2.1 OpenRTB

Many ad auctioneers operate in open programmatic and utilize Open Real-Time Bidding or OpenRTB. Real-time Bidding (RTB) is a way of transacting media that allows an individual ad impression to be put up for bid in real-time. IAB Tech Lab created and manages a specification (OpenRTB), an open protocol for the automated trading of digital media across a broader range of platforms, devices, and advertising solutions. OpenRTB is an IAB Tech Lab Industry standard protocol and set of Application Programming Interfaces (APIs) used in open programmatic auction systems to facilitate real-time bidding between buyers (DSPs) and sellers (SSPs) of digital advertising. The most recent OpenRTB spec can be found at the following link:

<https://github.com/InteractiveAdvertisingBureau/openrtb2.x>

The OpenRTB spec typically involves passing of data about bid requests, bids and auction outcomes between DSPs and SSPs and includes required fields in order for transactions to occur, but also has several optional fields. **Closed-loop platform auctions do not typically utilize OpenRTB.** It should be noted that certain private auctions may utilize OpenRTB, but have pre-negotiated rules outside of simple pricing; these distinct considerations are not explicitly covered below.

Finally, in coordination with this Standards effort, IAB Tech Lab has been working on a Programmatic Auctions Best Practices document with review from the Steer Team. This document is designed to be a supplement to these Standards focused on Open Programmatic and can be found here:

[https://docs.google.com/document/d/1d6QjWpbCjWY5nAgUnfQp5x2Fs-hgccA97m-
doiMmn4/edit?tab=t.0](https://docs.google.com/document/d/1d6QjWpbCjWY5nAgUnfQp5x2Fs-hgccA97m-doiMmn4/edit?tab=t.0)

2.2.2 OpenRTB Requirements

As part of the processes to develop these Standards, some ad auctioneers indicated they support all optional fields within the OpenRTB spec, but often do not receive them from sellers. Others indicated they do not use optional fields in the OpenRTB spec. These Standards encourage and in many cases, require, the use of several key attributes within the Open RTB Protocol in coordination with the IAB Tech Lab (the below guidance includes passing this detail in the supply chain and also making it available to third-party measurement providers where possible):

2.2.2.1 Transaction ID (tid)

The tid helps link bids from different bidders to specific ad impressions, facilitating attribution and reporting. While complete usage of the Source object is strongly encouraged, using the Transaction ID as specified in the OpenRTB spec in a bid request is the minimum requirement contingent on DSP adoption of Multi-Bid (discussed further below).

2.2.2.2 Global Placement ID (gpid)

The Global Placement ID (gpid) is a unique identifier for an ad placement, ensuring consistent recognition across different platforms, buyers, and sellers. By providing this single, standardized reference point, the gpid enhances transparency, allowing buyers to know exactly where their ads will appear, strengthens trust by enabling sellers to accurately represent their inventory, and increases efficiency by reducing confusion caused by inconsistent identifiers. In short, the gpid makes digital advertising transactions clearer, safer, and easier to manage and is required for compliance with this Standard contingent on DSP adoption of Multi-Bid (discussed further below).

2.2.2.3 SupplyChain Object

At a minimum, both the SupplyChain object and SupplyChainNode object (including the RequestId) are required to be used to their fullest extent and be complete. Buying platforms are required to provide reporting against both the Transaction ID (where applicable and present) and RequestID object to all buyers.

To get the most out of Supply Chain reporting, ads.txt and sellers.json, DSPs are required to do three things:

- Validate seller ids declared in ads.txt files with what should be the corresponding ids in the SSPs sellers.json files.
- Ensure that the supply chain ends at the owner of the inventory, which means that the publisher is the final node in the supply chain.
- Provide buyers with fully transparent reporting on the average number of nodes (also known as hops) and mis- or undeclared supply chains.

IAB Tech Lab is in process of developing a validation mechanism for SupplyChain object and node as part of broader supply chain transparency efforts. Ad Auctioneers are encouraged to participate in such efforts.

2.2.2.4 Multi-Bid

Multi-bid in RTB refers to a scenario where a DSP sends multiple bids for the same ad impression in a single RTB auction, either for different ad slots on the same page or for the same slot with different creatives or bid strategies. Instead of submitting a single best bid, the DSP submits several competitive bids to increase its chances of winning the impression. The use of multi-bid whenever possible is required for compliance with this Standard contingent on bid requests containing tid and gpid.

2.2.2.5 Podded-Bidding

For all CTV inventory, podded bidding, made available in Open RTB 2.6, is deemed the best practice for merchandising all CTV supply programmatically. Subsequently, buyers are required to use multi-bid when appropriate (contingent on bid requests containing tid and gpid), particularly in concert with podded bidding bid requests and other (including non-CTV) scenarios such as when a bid request contains multiple impressions, or if the buyer has set up buying strategies to optimize their pricing.

2.2.2.6 Bid Loss Codes

Appropriate Loss Codes are required to be passed from seller to buyer for all transactions and appropriately reported by the buy-side platform.

2.2.2.7 Unified Seller Platforms

Ad auctioneers may operate open programmatic auctions on behalf of publishers operating as both an SSP and a publisher ad server. Often, much of the auction control, rules and reporting is focused on the publisher as the clients of the unified seller platform, with advertiser users of the auction.

To the extent a unified seller platform operates an auction or serves ads while aggregating supply and requesting bids on behalf of publishers, that organization should still provide reporting to buyer participants in the auction system including disclosure of general rules for demand sources (where permissible), pricing and winner determination inclusive of the factors that apply to and affect price. For open programmatic unified seller platforms, efforts should be made to report OpenRTB parameters to buyer auction participants.

There may be contractual limitations to what can be shared or reported related to publisher configuration or deal terms, auction logic or restricted DSP data. Further, the involvement of third-party SSPs may limit full-path transparency for unified seller platforms. Finally, unified seller platforms may not always be able to map transactions one-to-one within the OpenRTB parameters above and the reporting and disclosure requirements below (such as full price derivation or per-buyer weighting).

In these cases, unified seller platform auction operators must develop processes to seek publisher approval of the level of information that can be shared and at minimum disclose general factors affecting the auction by publisher to enable buyers to dialogue further with publishers regarding these factors. MRC encourages such unified seller platforms to work with the IAB Tech Lab and publishers for a common transparency framework of minimum permissible information and reporting.

For the avoidance of doubt, a unified seller platform can be considered compliant for auction transparency requirements if they provide support for the disclosures and reporting required by this standard, even if certain publisher customers ultimately decide not to provide said disclosures to advertisers.

2.2.2.8 Other OpenRTB Supply Chain Requirements

-DSP support for Ads.txt 1.1: DSPs supporting updates to ads.txt will significantly reduce mis-declared relationships in supply chains and are required.

-Correct usage of MANAGERDOMAIN: The MANAGERDOMAIN variable are required to be used to represent a publisher's relationship with the primary or exclusive monetization partner.

-Video.plcmt: DSPs are required to read and decision off the video.plcmt field instead of video.placement (which is now deprecated). This will ensure that buyers are purchasing the video inventory they expect.

2.2.3 Other OpenRTB Supply Chain Best Practices (not required, but encouraged)

-Extended Identifiers: The Extended Identifiers object is encouraged to be used for all other known non-cookie identifiers for an impression opportunity.

-Adomain: Advertisers are encouraged to send accurate information about the actual buyer to the sellers (i.e. Adomain represents the actual brand).

In an OpenRTB context, auctions employing reserve prices should be managed through a Deal ID structure. DSP and SSP partners may have agreements with each other to provide specific custom information regarding floors or other pricing guidance. Section 5 of this document encourages ad auctioneers to provide user guides, explainers and help guides detailing auction dynamics and functionality and guidance related to bids/strategies as well as forecasting reach estimates and avails. Custom reporting arrangements are outside the scope of this Standard.

While the above Organizational Structure and Organizational Administration requirements (Section 2.1) should be applied to all auctions, including open programmatic, and the Open Programmatic requirements (Section 2.2.2) are specific to auctions using OpenRTB, the next section focuses on requirements for closed-loop auctions not utilizing OpenRTB.

3 Closed-Loop Ad Auctioneer Requirements

3.1 Pricing

3.1.1 Auction Type

A wide variety of auction systems may be in use including first-price, second-price and modified second-price. The auction type as well as the method for calculating second-price and modified second-price is required to be disclosed and the method by which winning bids are converted to final clearing prices are required to be directly reported in general if equally applied and for specific transactions where different. Disclosures of precise proprietary mechanisms or algorithm details are not required.

Where buying tools offered by ad auctioneers include inventory across O&O and non-O&O (third-party) supply sources and perhaps, different auction types and rules, this is required to be disclosed to auction participants with the ability to opt-out of specific supply sources.

3.1.2 Nominal to Effective Bid Conversion and Discounts

Some ad auctioneers may make no adjustments to nominal bids, while others may apply deal discounts or tech fees (gross or net), to bids. Further, other auctioneer bid factors, such as relevance of ads to goals, likelihood to purchase and campaign pacing, may be applied to or affect bid conversion through dynamic bidding and multipliers.

At minimum, the variables that affect nominal to effective bid conversion are required to be made known in general and reported to auction participants where applied to enable buyers and sellers to understand bid conversion (subject to line item reporting requirements discussed below).

Further, how discounts and tech fees are applied are required to be consistent and transparent. It is encouraged that fees are applied pre-auction (“net bidding”) to encourage efficient competition within the ecosystem. Discounts are encouraged to be applied post-auction. In any case, this is required to be disclosed.

In addition, the method for determining ad relevance scores is required to be disclosed and the specific scores reported. The method for determining likelihood to purchase/convert is also required to be disclosed and the measurement reported as well as subjected to independent validation (in compliance with *MRC Outcomes Standards*). Critically, the interaction between relevance scores and bid conversion is required to be sufficiently disclosed and reported such that auction participants are able to understand the degree to which relevance scores impact the valuation of their bids and winner determination; this is required to be facilitated by user guides, disclosures and/or explainers.

Finally, with regard to pacing, options for even and buyer-defined pacing (customizable/manual override) are required to be provided to auction participants .

Detailed disclosure regarding how pacing systems work, specifically to clarify the methods, are required. For example, the extent to which the system adjusts bid levels or sits out auctions in order to conform with a buyer’s campaign specifications. Time granularity of pacing is also relevant – e.g., whether the system has different pacing methods for intra-hour, intra-day, intra-campaign, etc.

3.1.3 Use of Reserve Prices (Floors)

Sellers may define reserve rules and these may be dynamically adjusted. Other ad auctioneers apply clear, fixed and disclosed minimums (by auction and inventory type).

The use of reserve prices are required to be clearly disclosed to auction participants. At minimum the reserve price is required to be directly reported to auction participants before an auction is run and after it concludes (subject to line item reporting requirements discussed below where applicable). Reserve prices should not be set on a per-buyer basis – the same floor should apply simultaneously to all buyers.

Where dynamic pricing strategies and optimization is applied, aggregated insights for campaigns should at minimum be reported.

3.2 Winner Determination

In the simplest form of auction rules, the highest bid wins. However, often, auctioneer bid factors (also applied in nominal to effective bid conversion as discussed above) such as demand source priority, seller defined business rules, ad quality, context and relevance affect the winner beyond price.

At minimum, the variables and the relative weighting of said variables that affect winner determination are required to be made known and reported (subject to line-item reporting requirements below) where applied to enable buyers and sellers to understand win/loss reason.

In addition, the method for constructing variables such as ad relevance scores, quality, context and priority rules are required to be disclosed and the actual applied variables reported.

Finally, direct deals or certain managed service buys that supersede an auction and may be the reason other bidders lose despite price are required to be generally disclosed.

3.3 Complex Auction Systems

It should be noted that auction systems may be complex and utilize Artificial Intelligence (AI) and Machine Learning (ML) techniques. Such systems may be dynamic and not easily be reported in simple terms, and ad auctioneers may prefer a focus on outcomes in disclosures as a result. However this complexity makes transparency in auction rules and reporting (including the requirements throughout these Standards) **more** important, not less: traceability and auditability are essential for accountability and buyer confidence that prices are not being set arbitrarily.

Therefore these complex auction systems (like other auction types discussed in these Standards) still require high-level disclosure to auction participants of their general functionality including disclosure of the rules and variables (which are designed and dictated by ad auctioneers) used to determine price, convert nominal to effective bids and select winners. These disclosures are tied to a specific point in time, not a guarantee that the system will behave identically in the future; nothing in this standard seeks to freeze models or auction rules. Key components and decision criteria must be documented and disclosed. This includes additional considerations such as:

- Feature Importance: Providing a dynamically generated list of the top N features or variables (e.g., ad relevance, content context, customer interest) that contributed the most to the ad's placement and price.
- Model Card Requirements: Documenting the training data, intended uses, known limitations, and performance metrics of ML models. Applying this concept to the auction system means continuously documenting the current version of the objective function, the weights applied to different performance dimensions and how often the model weights are updated.

Without understanding the relative impact of inputs (like bid, relevance score, quality score), auction participants cannot fairly compare performance across different platforms, nor can they accurately benchmark their own performance over time when the underlying mechanics of the auction are constantly changing. An auction participant needs to know if their ads are losing at auction because of a strategic misstep (e.g., poor creative, low bid, weak targeting) or a mechanical aspect of the auction system (e.g., a bug in the bid adjustment logic, an undisclosed fee structure, or an unintended consequence of the multi-objective optimization). Focusing only on outcomes eliminates the ability to make this crucial distinction.

Finally, MRC is planning a future effort related to complex AI and ML systems utilized and deployed across the ecosystem including those used in auction systems and buying tools. This effort will be focused on quality control, data source selection, validation, explainability and transparency. MRC intends to apply learning and guidance from this future effort to auction requirements and will likely revisit and update the requirements of this Auctions Standard where applicable and necessary.

4 Reporting (All Ad Auctioneers)

All ad auctioneers are required to provide data-based reporting that enables auction participants to understand what they paid and how that price was determined, in detail. The results of auctions are required to be reported in a syndicated/usable (at least machine readable) format for auction participants. This includes bid factors applied such likelihood to purchase/convert and quality scores. **Line-item granularity is generally required where feasible** as is a reporting latency availability of all auction results on a next day or 24-48 hour basis (although alternate reporting windows are permissible with support).

Performance data should be incorporated by the auction system as near real time as possible although real-time reporting is not required.

In order to ensure compliance with this Standard is feasible from a data and computational cost standpoint, sampling is allowed to facilitate reporting as are aggregated insights (at a campaign level). Sampling is required to be generally disclosed by ad auctioneers to auction participants and designed to be representative of typical ad auction activity (taking into account sample size relative to volume of transactions, time of day, day of week, seasonality and any other conditions or dynamics that may affect auction results). Sampling will be subject to MRC's sampling operational and disclosure requirements in the *MRC Minimum Standards* where applicable as part of MRC audits.

Aggregated insights should at least include the ability to understand campaign delivery, win/loss, spend/cost and performance against objectives.

Further, it is expected that ad auctioneers detail a specific minimum dataset and fields that will be syndicated and provided to all ad auction participants. These minimum datasets and fields

are required to be disclosed to ad auction participants. Ad auctioneers are free to agree to custom reporting for specific participants at their discretion, but these arrangements are outside the scope of this Standard.

Finally, it is recommended that ad auctioneers specify certain data fields and IDs to facilitate this reporting and to enable matching to external datasets. Section 2.2 of this Standard encourages and requires certain aspects of OpenRTB fields that enable this and similar specifications are required for closed-loop auctions. Ad auctioneers are required to disclose these minimum required fields and ID and establish reporting rules that dictate situations where reporting cannot be provided due to absence of these data or fields (as disclosed to auction participants).

As stated above, these Standards encourage 3P measurement where possible including accredited IVT and Content Level Brand Safety measurement (and possible future Made for Arbitrage/MFA or carbon considerations) on a pre- and post-bid basis as well as compliance with industry transparency efforts such as ads/app.txt, authorized resellers, referrers and traffic sourcing declarations, etc. Pre-bid qualification, including evaluation of bid requests, based on quality, IVT or buyer defined parameters, is encouraged.

Ad delivery and activity measurement that may be provided by ad auctioneers or 3P measurement vendors inclusive of impressions, clicks, viewability, IVT, audience, brand safety and other metrics should adhere to IAB and MRC Guidelines and Standards for measurement where applicable and are encouraged to be subject to independent validation through MRC accreditation audit. Further, bid information discussed throughout this Standard, including relevant OpenRTB objects, is strongly encouraged to be made available to third-party measurement providers where possible to enable independent measurement and reporting.

The IAB Tech Lab Open Measurement Software Development Kit (OMSDK) facilitates third-party access to measurement data for ads that serve in applications in mobile and CTV environments and is strongly encouraged to be utilized where possible by all ad auctioneers.

For open programmatic ad auctioneers utilizing OpenRTB and unified platforms operating on behalf of sellers (with specific guidance above), efforts should be made to report OpenRTB parameters and auction outcomes to buyer auction participants.

5 Disclosure Guidance (All Ad Auctioneers)

5.1 General

In general, all ad auctioneers are required to provide detailed disclosure to auction participants related to auction methods applied including models and adjustment, as supported by documentation and empirical support.

In addition to requirements throughout these Standards related to specific disclosures of methods, variables, terms and rules applied in ad auctions, ad auctioneers are required to supply auction participants user guides, explainers and help guides detailing auction dynamics and functionality.

Finally, guidance related to bids/strategies as well as forecasting reach estimates and avails are encouraged.

5.2 Change Disclosure

Material changes to auction systems or methods are required to be proactively communicated to auction participants in advance. These disclosures may take the form of formal release notes or other means, but at minimum, a formal change notification policy (compliant with MRC Minimum Standards) is required to be developed and adhered to including testing, review and release requirements as well as include reasonable periods for disclosure. Ad auctioneers are also required to maintain version histories of auction systems or methods made available to auction participants and provide impact assessments to auction participants for meaningful changes.

Tests of changes to auction methodology conducted in a production environment (“live tests”) are required to adhere to *MRC’s Minimum Standards* (A.10) including disclosure and reporting requirements.

5.3 Error and Variability

Errors or variability associated with estimates, models or other bid factors and variables involved in the auction (such as likelihood to purchase/convert, quality scoring, etc.) are required to be disclosed. *MRC Minimum Standards* require disclosure and quantification of sampling and non-sampling error and variability, and these requirements apply to ad auctioneers seeking to be compliant with these Standards.

6 Auditing Guidelines (All Ad Auctioneers)

6.1 General

Third-party independent auditing is encouraged for all auction systems and operators, particularly those not utilizing industry standard communication protocols such as OpenRTB (closed-loop auctions). Ad auctioneers are encouraged to voluntarily submit for MRC accreditation audit against these Standards as well as to utilize measurement and report of ad delivery that is audited and accredited. It should be noted that while submission to MRC accreditation audit is voluntary, in order to achieve accreditation against these Standards, various aspects of these Standards are required as detailed above, and will be expected to be directly assessed (including directly auditing operational effectiveness of defined policies and practices) as part of substantive independent audits.

6.2 U.S. Certification Recommendation

Ad auctioneers and systems are recommended to be certified as compliant with these Standards, at minimum annually by voluntarily submitting to independent audit. This recommendation is strongly supported by the 4As, ANA, WFA and other members of the buying community.

In addition to MRC, there are a number of other certifiers and types and levels of certification available to organizations involved in media measurement and ad auctioneers.

6.3 International Certification Recommendation

The MRC encourages non-U.S. measurers of activity to adopt the practices spelled out in these Standards. While certification regimes may vary on a country-by-country basis, we encourage measurers and ad auctioneers to be audited for compliance annually by independent, third party auditing organizations.

6.4 Industry Adoption

At minimum, these Standards are available for auction participants to set expectations regarding reporting, disclosure and transparency and for ad auctioneers to strive to adhere to them. While third-party auditing and MRC accreditation auditing is voluntary, supporting and sponsoring industry organizations may encourage compliance with these Standards as well as independent audit verification as part of separate efforts at their discretion.

7 Glossary of Terms

Ad Auction: A process by which advertisers bid for ad inventory, following which an auctioneer evaluates bids, selects winners and sets prices.

Ad Auctioneer: Any company that conducts an ad auction. For the avoidance of doubt, this is a company operating an advertising system that evaluates bids, selects winner(s), and sets a price or prices (even if it is not the “final” auction in a multi-stage auction process).

Auction Participant: An advertiser or their representative which is bidding into an ad auction.

Auctioneer Bid Factors: Factors or adjustments that an auctioneer may use to increase or decrease the effective value of a nominal bid. Examples of this include ad quality or relevance scores, expected value of a particular ad slot/placement, and historical ad or advertiser performance.

Effective Bid: The bid value that an auctioneer attributes to a given nominal bid. Typically, the product of the nominal bid and auctioneer bid factors.

First-Price Auction: Bids are sealed (secret); highest bidder wins; the auction winner pays their bid.

Modified Second-Price Auction: Highest bidder wins, auction winner pays an amount determined by a formula, which may include multiple factors; custom to each auctioneer, commonly found in search and social auctions.

Nominal Bid: The bid amount that an advertiser enters into an auction. This could be expressed in a variety of terms, including CPM, CPC, CPV, CPA, and so on.

Qualified Bid: Generally, a bid that is accepted by an auctioneer and entered into auction competition. For OpenRTB specifically, this is a bid that is not malformed (malformed bids are not processed), and has met the auctioneer system's determination of which demand partners are eligible (If no demand partners are determined as eligible, the auction process stops), which may include determining DealID eligibility. A qualified bid must meet publisher business thresholds, e.g., price floors and buyer brand safety requirements, and all other business requirements for acceptance, e.g., competitive brand separation. Finally, bids are validated by checking the bid's price against pricing rules, the bid's seat and advertiser against optional allow and deny lists for the seller (typically the publisher). Once these technical and business thresholds are passed and validated, the auctioneer accepts the qualifying bid to compete with other qualified bids.

Reserve (or Reservation) Price (also may be referred to as Price Floor): The price below which an auctioneer will not sell a given ad impression. Reserve prices can be used to increase clearing prices beyond what an auctioneer might otherwise realize simply through the bidding process. Reserve prices and price floors may be used in different ways for different inventory types and may be dynamic or algorithmically determined.

Second-Price Auction: Bids are sealed (secret); highest bidder wins; the auction winner pays the second-highest bid (or a penny more).

8 References

MRC Minimum Standards (For Media Rating Research):

<https://mediaratingcouncil.org/sites/default/files/Standards/MRC%20Minimum%20Standards%20-%20December%202011.pdf>

IAB and MRC Measurement Guidelines and Standards Listing:

<https://mediaratingcouncil.org/standards-and-guidelines>

9 Supporting Associations and Participating Organizations

About the Media Rating Council (MRC)

The Media Rating Council is a non-profit industry association established in 1963 comprised of leading television, radio, print and digital media companies, as well as advertisers, advertising agencies and trade associations, whose goal is to ensure measurement services that are valid, reliable and effective. Measurement services desiring MRC accreditation are required to disclose to their customers all methodological aspects of their service; comply with the *MRC Minimum Standards for Media Rating Research* as well as other applicable industry measurement guidelines; and submit to MRC-designed audits to authenticate and illuminate their procedures. In addition, the MRC membership actively pursues research issues they consider priorities in an effort to improve the quality of research in the marketplace. Currently approximately 110 research products are audited by the MRC. Additional information about MRC can be found at www.mediaratingcouncil.org

About the Association of National Advertisers (ANA)

The Association of National Advertisers (ANA) is the definitive voice of the marketing industry. Since 1910, we have set and advanced the agenda for marketing transformation, connecting over 1,600 member companies to an influential global network, insights and resources that drive growth. Our members represent 20,000 brands and \$400 billion in annual marketing investment. Through industry-leading research, the CMO Growth Council, and our proprietary Growth Agenda and Practices, the ANA empowers marketers to shape the future of marketing and create lasting impact for their organizations and the industry.

About the World Federation of Advertisers (WFA)

WFA is the only global network for senior marketers. We champion more effective, efficient and sustainable marketing communications.

We represent over [150 of the world's biggest brands](#) and [more than 60 national advertiser associations](#) worldwide. Together, this unique peer-to-peer network of the world's best marketers offers a unique source of expertise, inspiration and leadership.

Representing 90% of global marketing communications spend, roughly US\$900 billion per year, WFA is the voice of marketers worldwide. WFA host 80+ meetings and webinars annually to connect over 10,000 marketers and policy professionals.

About the American Association of Advertising Agencies (4A's)

The 4As was established in 1917 to promote, advance and defend the interests of our member agencies, employees and the advertising and marketing industries overall. We empower and equip our members to confidently navigate the ever-changing ecosystem of the agency world. We ensure they remain relevant, are positioned to compete, and have the resources to thrive and grow. With a focus on advocacy, talent and creating impact, the organization serves 600+ member agencies across 1,200 offices, which help direct more than 85% of total U.S. advertising spend. The 4As includes the 4As Benefits division, which insures more than 160,000 employees; the government relations team, who advocate for policies to support the industry; and the 4As Foundation, which advocates for and connects rising talent to the marketing industry by fostering a culture of curiosity, creativity and craft to fuel a more equitable future for the industry.

About the Interactive Advertising Bureau Tech Lab (IAB Tech Lab)

Established in 2014, the IAB Technology Laboratory (Tech Lab) is a non-profit consortium that engages a member community globally to develop foundational technology and standards that enable growth and trust in the digital media ecosystem. Comprised of digital publishers, ad technology firms, agencies, marketers, and other member companies, IAB Tech Lab focuses on solutions for brand safety and ad fraud; identity, data, and consumer privacy; ad experiences and measurement; and programmatic effectiveness. Its work includes the OpenRTB real-time bidding protocol, ads.txt anti-fraud specification, Open Measurement SDK for viewability and verification, VAST video specification, and Project Rearc initiative for privacy-centric addressability. Board members/companies are listed at <https://iabtechlab.com/about-the-iab-tech-lab/tech-lab-leadership/>. For more information, please visit <https://iabtechlab.com>

About Omnicom

Omnicom (NYSE: OMC) is a leading provider of data-inspired, creative marketing and sales solutions. Omnicom's iconic agency brands are home to the industry's most innovative communications specialists who are focused on driving intelligent business outcomes for their clients. The company offers a wide range of services in advertising, strategic media planning and buying, precision marketing, retail and digital commerce, branding, experiential, public relations, healthcare marketing and other specialty marketing services to over 5,000 clients in more than 70 countries. For more information, visit www.omnicomgroup.com.

STEER TEAM:

Ben Hovaness (Omnicom): Lead
Ashwini Karandikar (4A's)
Kevin Freemore (4A's)
Amy Pacheco (4A's)

Jackson Bazley (ANA)
Tom Ashby (WFA)
Anthony Katsur (IAB Tech Lab)

Participating Working Group Organizations:

| | | | |
|----------------------------|--------------------------------|-----------------------|-----------------------|
| 4As | Deloitte & Touche | IAB Tech Lab | Publicis |
| A+E Networks | Diageo | IBO USA | Scope3 |
| ACA | Direct Digital Holdings | ISBA | SiriusXM |
| Adelaide | DoubleVerify | Jounce Media | Spectrum |
| AMC Networks | EW Scripps | Kinesso | TEGNA |
| Amplifi | EY | L'Oreal | The Trade Desk |
| ANA | Flashtalking | LinkedIn | TikTok |
| Audacy | Flywheel Digital | Magnite | TV Azteca |
| Auditel | Ford | Mars | VAB |
| AURN | FOX Sports | Meta | Vistar Media |
| BDO | FreeWheel | Miaozhen | Way.io |
| Boehringer Ingelheim | GroupM | Microsoft | WFA |
| CIMM | Hearst | Nielsen | X |
| CMAC | Hubbard | OMD | Zefr |
| Colossus | Hulu Disney | OUTFRONT Media | |
| CUENDE | HUMAN | PepsiCo | |
| Cunningham Tech Consulting | IAB | Pixalate | |

Contact us at:

MRC:

Ron Pinelli, SVP Digital Research and Standards

212-972-0300

rpinelli@mediaratingcouncil.org

Appendix: Summary of Key Requirements (not including all guidance)

| Area | Topic | Requirement | Section | Page |
|---------------|-----------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|
| General (All) | Auction Oversight | Formalized responsibility for auction integrity within the auctioneer organization, including a designated contact for auction participants. | 2.1.1 | 5 |
| General (All) | Auction Participant Qualification | Auction participant qualification policies documented and made known to auction participants. Some level of verification conducted to confirm compliance with these policies, initially and periodically. Defined processes to address policy violations and resulting actions taken overseen by the Auction Oversight function. | 2.1.2 | 5-6 |
| General (All) | Creative Qualification | Minimum, defined, documented and disclosed requirements for enforcement of creative policies. Defined processes to address requirements violations and resulting actions taken, as well as clear disclosures of the same. | 2.1.3 | 6 |
| General (All) | Supply Qualification | Defined, documented and disclosed requirements for enforcement of policies for inventory/supply source quality through validated measurement. Defined processes to address requirements violations and resulting actions overseen by the Auction Oversight function. | 2.1.4 | 6-7 |
| OpenRTB | Transaction ID | Use of the Transaction ID as specified in the OpenRTB spec in a bid request contingent on DSP adoption of Multi-Bid. | 2.2.2.1 | 8 |
| OpenRTB | Global Placement ID | Use of the Global Placement ID as specified in the OpenRTB spec in a bid request contingent on DSP adoption of Multi-Bid. | 2.2.2.2 | 8-9 |

| Area | Topic | Requirement | Section | Page |
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| OpenRTB | Supply Chain Object | <p>Use of both the SupplyChain object and SupplyChainNode object to their fullest extent in a complete manner.</p> <p>Buying platforms to provide reporting against both the Transaction ID (where applicable and present) and RequestID object to all buyers.</p> <p>DSPs validate seller ids declared in ads.txt files with what should be the corresponding ids in the SSPs sellers.json files.</p> <p>DPSs ensure that the supply chain ends at the owner of the inventory, which means that the publisher is the final node in the supply chain.</p> <p>DSPs provide buyers with fully transparent reporting on the average number of nodes and mis- or undeclared supply chains.</p> | 2.2.2.3 | 9 |
| OpenRTB | Multi-Bid | Use multi-bid whenever possible on bid requests containing tid and gpid. | 2.2.2.4 | 9 |
| OpenRTB | Podded-Bidding | Buyers to use multi-bid when appropriate (contingent on bid requests containing tid and gpid), particularly in concert with podded bidding bid requests and other scenarios such as when a bid request contains multiple impressions, or if the buyer has set up buying strategies to optimize their pricing. | 2.2.2.5 | 9 |
| OpenRTB | Bid Loss Codes | Pass Loss Codes from seller to buyer for all transactions and appropriately reported by the buy-side platform. | 2.2.2.6 | 10 |
| OpenRTB | Unified Seller Platforms | <p>Unified seller platforms should provide reporting to buyer participants in the auction system including disclosure of general rules for demand sources (where permissible), pricing and winner determination inclusive of the factors that apply to and affect price.</p> <p>For open programmatic unified seller platforms, efforts should be made to report OpenRTB parameters to buyer auction participants.</p> <p>Unified seller platform auction operators must develop processes to seek publisher approval of the level of information that can be shared and at minimum disclose general factors affecting the auction by publisher.</p> | 2.2.2.7 | 10 |

| Area | Topic | Requirement | Section | Page |
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| OpenRTB | Other | <p>DSPs to support updates to ads.txt</p> <p>Use MANAGERDOMAIN variable to represent a publisher's relationship with the primary or exclusive monetization partner.</p> <p>DSPs to read and decision off the video.plcmt field instead of video.placement (which is now deprecated).</p> | 2.2.2.8 | 10-11 |
| Closed Loop | Auction Type | <p>Disclose auction type as well as the method for calculating second-price and modified second-price.</p> <p>Directly report in general, the method by which winning bids are converted to final clearing prices if equally applied and for specific transactions where different.</p> <p>Disclose where buying tools offered by ad auctioneers include inventory across O&O and non-O&O (third-party) supply sources and perhaps, different auction types and rules with the ability to opt-out of specific supply sources.</p> | 3.1.1 | 11 |
| Closed Loop | Nominal to Effective Bid Conversion | <p>Make known in general and report the variables that affect nominal to effective bid conversion (subject to line item reporting requirements discussed below).</p> <p>Disclose the method for determining ad relevance scores and report them.</p> <p>Disclose the method for determining likelihood to purchase/convert and report measurement as well as subject it to independent validation.</p> <p>Sufficiently disclose and report the interaction between relevance scores and bid conversion.</p> <p>Facilitate these disclosures with user guides, and/or explainers.</p> <p>Provide options for even and buyer-defined pacing (customizable/manual override).</p> <p>Provide detailed disclosure regarding how pacing systems work, specifically to clarify the methods.</p> | 3.1.2 | 12 |
| Closed Loop | Discounts /Fees | <p>Apply discounts and tech fees consistently and transparently.</p> <p>Disclose how discounts and fees are applied.</p> | 3.1.2 | 12 |

| Area | Topic | Requirement | Section | Page |
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| Closed Loop | Use of Reserve Prices (Floors) | <p>Disclose the use of reserve prices.</p> <p>Directly report the reserve price before an auction is run and after it concludes (subject to line item reporting requirements discussed below where applicable).</p> <p>Apply the same reserve price or floor simultaneously to all buyers.</p> <p>Report aggregated insights for campaigns where dynamic pricing strategies and optimization is applied.</p> | 3.1.3 | 12-13 |
| Closed Loop | Winner Determination | <p>Make known and report the variables and the relative weighting of said variables that affect winner determination (subject to line-item reporting requirements below) where applied.</p> <p>Disclose the method for constructing variables such as ad relevance scores, quality, context and priority rules and report the actual applied variables.</p> <p>Generally disclose when direct deals or certain managed service buys supersede an auction and may be the reason other bidders lose despite price.</p> | 3.2 | 13 |
| Closed Loop | Complex Auction Systems | <p>Provide high-level disclosure to auction participants of general auction functionality including disclosure of the rules and variables (which are designed and dictated by ad auctioneers) used to determine price, convert nominal to effective bids and select winners.</p> <p>Document key components and decision criteria must including:</p> <ul style="list-style-type: none"> -Feature Importance: Provide a dynamically generated list of the top N features or variables that contributed the most to the ad's placement and price. -Model Card Requirements: Document the training data, intended uses, known limitations, and performance metrics of ML models. Document the current version of the objective function, the weights applied to different performance dimensions and how often the model weights are updated. | 3.3 | 13-14 |

| Area | Topic | Requirement | Section | Page |
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| Reporting (All) | Reporting | <p>Provide data-based reporting that enables auction participants to understand what they paid and how that price was determined, in detail.</p> <p>Report the results of auctions in a syndicated/usable (at least machine readable) format for auction participants.</p> <p>Provide line-item granularity where feasible.</p> <p>Provide a reporting latency availability of all auction results on a next day or 24-48 hour basis (although alternate reporting windows are permissible with support).</p> <p>Generally disclose sampling where used and design sampling to be representative of typical ad auction activity.</p> <p>Provide aggregated insights that at least include the ability to understand campaign delivery, win/loss, spend/cost and performance against objectives.</p> <p>Detail and disclose a specific minimum dataset and fields that will be syndicated and provided to all ad auction participants.</p> <p>Disclose these minimum required fields and ID for reporting and establish/disclose reporting rules that dictate situations where reporting cannot be provided due to absence of these data or fields.</p> <p>Make efforts to report OpenRTB parameters and auction outcomes to buyer auction participants where utilized.</p> | 4 | 14-15 |
| Disclosures (All) | General | <p>Provide detailed disclosure related to auctions methods applied including models and adjustment, as supported by documentation and empirical support.</p> <p>Supply user guides, explainers and help guides detailing auction dynamics and functionality.</p> | 5.1 | 16 |

| Area | Topic | Requirement | Section | Page |
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| Disclosures (All) | Change Disclosure | <p>Proactively communicate material changes to auction systems or methods in advance.</p> <p>Develop and adhere to a formal change notification policy including testing, review and release requirements as well as include reasonable periods for disclosure.</p> <p>Maintain version histories of auction systems or methods and make them available to auction participants as well as provide impact assessments to auction participants for meaningful changes.</p> <p>Subject tests of changes to auction methodology conducted in a production environment ("live tests") to <i>MRC's Minimum Standards</i> (A.10) including disclosure and reporting requirements.</p> | 5.2 | 16 |
| Disclosures (All) | Error and Variability | <p>Disclose errors or variability associated with estimates, models or other bid factors and variables involved in the auction.</p> <p>Disclose and quantify sampling and non-sampling error and variability.</p> | 5.3 | 16 |