

Interactive Advertising Bureau

Guidelines for the Conduct of Ad Verification

February 14, 2012

Media Rating Council (MRC) Interactive Advertising Bureau (IAB)

Background

Consistent and accurate execution of Internet advertising campaign parameters is critical for continued acceptance and growth of Internet advertising.

This document establishes a detailed set of methods and common practices for ad verification, which is a service focused on determining appropriate execution of Internet advertising campaigns. Key service lines of ad verification are stated and defined in these guidelines as well as accepted methods for each area. Generally, the combination of measurement certification (of ad servers, publishers and ad-networks, etc.) coupled with appropriate ad verification are considered good practices for providing assurance to marketers and their agency partners about the execution of Internet advertising campaigns.

Measurement certification is covered by other pre-existing IAB guidelines, such as those for Ad Impressions, Clicks, Rich Media, Rich Internet Applications and Audience Reach Measurements. These guidelines contain guidance that is valuable to the practice of ad verification and should be incorporated wherever applicable by the verification vendor.

This document is intended to provide information to verification vendors and other users of verification services (both buyer-side and seller-side) to ensure a common understanding of existing practices, transparency and other general principles involved in campaign assessments.

The guidelines contained in this document originated from a project led by the Interactive Advertising Bureau (IAB) and facilitated by the Media Rating Council (MRC), with the participation of a large group of ad verification vendors, publishers, ad-servers, ad-networks, advertising agencies, and other interested organizations. These guidelines will also be reviewed and approved by major buyer-side trade organizations (4As, ANA) and their constituents and thereafter provided to the public through a formal period of public comment prior to formal adoption.

Additionally, this document established a special independent audit process whereby the practices and disclosures of verification vendors themselves can be validated.

Project Participants

<u>Associations – Primary Sponsors/Facilitators</u> Interactive Advertising Bureau (IAB) Media Rating Council (MRC)

<u>Ad Verification Services</u> Adometry Adledge AdSafe Media AdXpose	DoubleVerify The Media Trust Peer39 Performline	Project Sunblock Proximic RocketFuel Telemetry
Other Organizations 24/7 Real Media ABC Interactive Ad-ID, LLC Aegis Media AOL BPA Worldwide Carat Casale Media CBS Interactive Click Forensics comScore CONTEXTWEB Deloitte & Touche Digital Ad Solutions@RDA Disney Interactive Media Group Ernst & Young	Facebook Goodway Group Google GroupM Interaction Havas Digital HealthiNation IMServices Group Intel KPMG Mansueto Ventures MEC Interaction Mediabrands Media Contacts Microsoft Advertising NBC Universal Digital Media Nurago	New York Times OMD North America PricewaterhouseCoopers R/GA RealVu Sharethrough Starcom MediaVest Traffic Marketplace Turner Broadcasting Universal McCann Undertone Univision Interactive Media ValueClick Media Viviki Yahoo!

Scope and Applicability

These guidelines are intended to cover the methods used for ad verification of on-line advertising including mobile, e-mail or lead generation campaigns of all types (herein after referred to collectively as "campaigns") – impressions, rich media, video, clicks or reach metrics.

This document is principally applicable to verification vendors, Internet media companies and ad-serving organizations and is intended as a guide to accepted practice, as developed by the IAB, MRC, and participating organizations. Additionally, marketers, Internet campaign

planners and buyers can use this document to assist in determining how accurately campaign parameters are executed.

This guideline is applicable to both real-time verification and post delivery verification services. Real-time verification services present additional time/logistical complications that are different from a post verification environment and accordingly all parties in the verification process should be aware of the potential for ad blocking, and latency concerns and other complications to ad operations should be discussed and addressed in advance. A description of the nature of real time verification processes should be supplied to the involved parties.

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1. Definitions

Above the Fold/Below the Fold: Advertisements and content can appear Above the Fold or Below the Fold for each page load. The "fold" has traditionally been considered where the initially-loaded viewable space of the page ends – so advertisements and content above the fold was considered likely to be viewable upon load and content below the fold was considered necessary to scroll to in order to be viewable. In reality, the location of the fold, and consequently the viewability of advertising and content, is variable based on the browser settings of the user (resolution, font size, window size, etc.) and there are generally four locations (top, bottom, left and right sides) where advertising and content may be cut off from viewability based on user actions and settings. Upon initial page load, advertising or content placed at the top and left side of the page are most likely to be viewable, however this can change if content or ads are obscured by overlays or with further user action (scrolling) coupled with latency; therefore, placement and viewability are separate attributes to be assessed.

Ad Blocking: A decision made by the ad verification service on behalf of the verification client (generally a marketer/advertising agency) to prevent an advertisement from appearing on a page based on specified criteria applied by the ad verification service, agreed to in advance as documented in the terms and conditions of the campaign.

Ad Exchange: A platform for buying and selling online advertising inventory.

Ad Network: A broker for buying online advertising inventory across sites and managing online advertising campaigns.

Ad Placement: Refers to the placement of the ad (or ad-group) on a web page, including attributes such as the positioning of where an ad appears on the page, the size and orientation of the ad as it appears on the page, and possibly other characteristics as specified in the campaign terms (e.g., frequency capping, share of voice, road blocks). Ad placement can be applicable to more than one ad unit served at a time (an ad-group).

Ad Verification: A process which attempts to verify that one or more attributes of a served online ad have been executed in a manner consistent with the terms specified by the advertiser or agency and agreed to as part of the ad campaign terms.

Ad Verification Service: An entity that performs ad verification processes.

Competitive Separation: Refers to the condition on some ad campaigns that ads do not appear within certain proximity of other ads for competing products or advertisers, or other

ads from which separation is desired by the advertiser. These separation parameters should be clearly specified as part of the terms of the campaign.

Compliant Ad: Ads served that meet the terms of an insertion order, media plan and other custom specifications provided by the verification client (generally a marketer/advertising agency).

Fraud: An intentionally deceptive practice designed to manipulate legitimate ad serving or measurement processes or create fictitious activity that leads to inflated counts. In the context of ad verification, two types of fraud can be encountered – Placement Fraud and Fraudulent Traffic. Placement Fraud manipulates serving activity so ads are measured when they are not viewable or served within operationally usable parameters. Fraudulent Traffic is machine generated traffic which is not observable by a user that increments ad measurements inappropriately.

As used in this Guideline, Fraud is not intended to represent fraud as defined in various laws, statutes and ordinances or as conventionally used in U.S. Court or other legal proceedings, but rather a custom definition strictly for advertising measurement purposes.

Geotargeting: Refers to the serving (or non-serving) of ads to users in specific geographic locations, as far as these locations can be determined. User IP addresses are among the methods used to assign geographic location to users.

I-Frames: The sections of a website/webpage that display ads served from a third party ad server that limits the access of that ad server solely to the code of the page. I-Frames can be nested, essentially creating a "chain" of serving instances from serving partners. An I-Frame associated with a placement where the ad tag is located on an HTML document loaded from a domain other than the domain of the document on which the I-Frame was rendered is called a nested I-Frame, blind I-Frame or cross-domain I-Frame.

Publisher: An individual or organization that prepares, issues and disseminates content for public distribution or sale via one or more media.

See Through Rate: The rate at which an Ad Verification process can observe (and therefore verify) the ultimate content contained within I-frames, including nested I-Frames. If only a sample of impressions is used in calculating the see through rate, it should be called a "projected see through rate."

Seller Organization: As used in this document, this refers to a seller of online advertising. This may be a publisher, an ad network, an ad exchange, or other platform through which online ads may be sold (or re-sold). Seller organization properties are typically the subject of ad verification processes.

Site Context: Refers to certain attributes of a web page or web site that are used as determinants as to whether the page to which the ad is to be served represents an appropriate

environment in which the ad should appear, as determined by parameters set by the advertiser. For example, an advertiser may set certain parameters as part of the campaign terms to prohibit serving its ad to adult-oriented pages or sites, sites containing hate speech, or sites that provide or enable illegal access to copyrighted materials.

Tracking Technology: Technology, embedded within an advertisement, to perform census-based campaign measurement functions. When an advertisement containing the tracking technology is served on a publisher's web site, the tracking technology enables an ad verification system to identify certain information related to the transaction, for example: (1) the page URL where the ad was served and (2) the IP address of the browser to which the advertisement was served.

Viewability: Whether the ad was contained in the viewable space of the browser window based on pre-established criteria such as the percent of ad pixels within the viewable space and the length of time the ad is in the viewable space of the browser.

2. General Description and Principles – Ad Verification a. Verification Logistics

Ad Verification services should be conducted in a transparent manner with the customers of the service and insofar as possible, depending on seller cooperation, in a transparent manner with the publishers, portals and ad networks/exchanges where subject advertising is served. It is encouraged that the use of an ad verification service be disclosed in the insertion order or other campaign set up documentation to assure transparency.

Methods used to verify advertising, including specific integration tools and tracking assets where used, should be fully described. Fully disclosing methods in advance to sellers prior to executing the ad verification service is an important practice. This transparency is designed to enable the responsible assessment and consideration of the verification results by seller organizations, for example whether sample results are projectable to a campaign or subject web-property.

When non-statistical sampling based methods are combined with noncensus methods or when non-census, non-statistical sampling based passive detection/review tools are used (crawlers, spiders, etc.), resulting observations cannot be generalized across a campaign (projectable) and this type of judgmental analysis should be identified to the customer as appropriate in the description of methodology as well as in ad verification reporting. Ad Verification services should strive to implement accurate methods, for example encouraging integration of verification tools into the campaign creative and obtaining reasonable seller cooperation.

Ad verification services should consider the requirements of existing IAB guidelines which sellers seek to comply with and they should attempt to align verification expectations with existing IAB Measurement Guidelines, as applicable, to ensure consistent expectations with seller-organizations who strive to comply with these guidelines. Other IAB documents centered on business aspects of advertising transactions, such as Terms & Conditions, should be referenced for guidance on data rights and ownership.

Early communication of verification results is encouraged as this could help to avoid perpetuation of errors during the campaign and afford maximum brand protection to the customer. Post execution discovery of serving issues is not desirable.

b. Primary Service Lines

This guideline addresses five primary service lines of ad verification: (1) Site Context (evaluation, analysis or assessment), (2) Geo-Targeting, (3) Ad Placement, (4) Competitive Separation and (5) Fraud Detection. Each service line is explained with generally accepted practices identified. Nothing in this guideline should be interpreted as preventing the derivation and marketing of other types of ad verification services beyond the five service lines described herein, and the IAB and MRC encourage the development and adoption of more accurate verification methods as they are developed. In fact, development of more effective methods over and above those specified herein is encouraged – see section 5.f of the guidelines entitled "Other Service Lines Available" for a general taxonomy of ad verification service lines.

Methods associated with other service lines (not part of the five specified herein) are required to be conceptually compliant with these guidelines, where applicable, using a similar level of rigor specified for the five primary service lines – most importantly, full disclosure to the users of the verification data (customers and seller organizations) is a required attribute since these would be relatively unique services.

c. Communication

As described above, ad verification processes should be transparent to customers and seller organizations, in that both know the general criteria being used for evaluation (details of specific proprietary methods may be excluded). Methodological and logistical communication should be established during the campaign onboarding process for the ad verification customers and during the monitoring process set-up for the selling organizations, insofar as possible.

Communication with the ad verification customers prior to execution of the verification campaign is encouraged to properly set expectations – if illustrative example results are shown to potential customers using site-based information/discovery, this information should be real rather than hypothetical, otherwise disclosure as hypothetical should be made. Customers should be informed of the technical limitations, if any, of the verification process as well as past experience with false positives by service line.

Completely anonymous monitoring of advertising campaigns is discouraged, except as described below in the paragraph on Initial Benchmark Testing, because these methods are generally less effective due to a lack of technical integration and difficulty in generalizing (projecting) results.

The obvious focus of ad verification services is ensuring campaign execution in accordance with the pre-established terms between buyer and seller organizations; however in general, another focus of ad verification services should be on improving the advertising ecosystem, hence communication of known exceptions to customers as well as sellers (to enable process correction) is strongly encouraged. An ad verification service should try constantly to reduce the impact of false positives and negatives or ambiguities from technological limitations on reported results.

Seller organizations should be provided with a clear process to report inaccuracies and false positives to the verification service provider to enable process correction. The notification of issues to the seller organizations should occur as per the contractual terms between the buyer and seller. This information should be retained for review by auditors.

Initial Benchmark Testing – Occasionally, a marketer will ask an Ad Verification service to conduct passive benchmark testing early in a campaign to learn about the general practices and implementation accuracy of seller organizations (this often times happens in the first test ad campaign submitted for verification by a marketer). These benchmark tests are sometimes conducted without the participation of the seller organization (i.e, non-integrated), but this practice is only authorized by these Guidelines if non-disclosed benchmark testing is not explicitly prohibited in the campaign terms and conditions; and either (1) the applicable verification client (agency, marketer, or, in some circumstances, reseller network/exchange) discloses the practice in advance to the seller organizations, or (2) the verification partner has been previously certified or approved to work in the seller organization's environment. In these cases, results of benchmark tests should also be shared timely after the conduct of the testing with the seller; allowing the seller organization an opportunity to assess and comment on these results prior to issuance to the marketer is preferred.

d. Applicability of Ad Verification to Accredited/Certified Measurers

IAB Certified and/or MRC Accredited seller organizations should be indicated as such and it should be noted that the validity of general ad measurement has been established for these organizations. In cases where overlapping certifications/accreditations exist, the source of final campaign metrics should be determined through agreement of the marketer, agency and vendor partner(s).

As described later in these guidelines, ad verification services can undergo certification/accreditation processes through third-party audits of verification methods (as described herein, section 9) or other metrics covered in separate IAB Guidelines. In these cases reports from the ad verification service are eligible for use by buyers and sellers in a manner similar to certified/accredited metrics.

3. The Ad Serving Environment

The Specific Technical Linkage of the Ad Verification Service to the Ad Serving Environment – Tags, Beacons, Automated Spiders/Crawlers, Human Observation, etc. – Should Be Disclosed

Ad verification services are generally integrated into ad campaigns using some form of tracking asset (ad tags, beacons, etc.). In such cases the specific methods used should be disclosed, including a general description of the effectiveness and known limitations of the method – for example, where the method works accurately and what types of site, page, browser, I-Frames (including nested I-Frames served from other domains) or firewall structures defeat the specific method.

Alternatively passive (non-integrated) analysis tools such as automated crawlers, spiders, or human review, can be used to detect certain attributes of subject sites/pages. Where these types of non-integrated tools are used to make inferences about ad campaigns or subject sites/pages, these methods should be disclosed. The limitations associated with these methods

should be highlighted in disclosures – for example, the non-random nature of observations, non-census approaches, or the impact on projection of results.

Use-cases and examples of tools used are encouraged to be a part of technical disclosures made by the ad verification service. If examples are based on hypothetical situations or data, that fact should be disclosed.

Ad verification services, especially when integrated into advertising campaigns, can become aware of seller-vendor relationships that may be protected from disclosure to ad verification customers through contractual terms and conditions. In these cases ad verification services should honor the terms and conditions, and structure their customer reporting interfaces to withhold contractually restricted information.

Compliance with Existing IAB Measurement Guidelines

The IAB and MRC encourage Industry-Accepted methods of advertising measurement as well as ad verification (as specified herein). As such, ad verification services should align methods, where applicable, with existing IAB measurement guidelines. This alignment will ensure consistency with seller organizations that strive to adopt existing guidelines.

Special disclosures should be made if the measurement aspects of subject sites/pages and campaigns have been already subject to certification/accreditation procedures by an independent third party. This disclosure is only required where a significant ad verification finding is being reported relative to a certified/accredited organization <u>and</u> that finding has implications on measurement of the transaction (not the unverified campaign attribute, such as site context). A list of organizations that participate in the IAB Certification process is available at www.iab.net, and a list of organizations that participate in the MRC Accreditation process is available at www.mediaratingcouncil.org.

Critical concepts of existing IAB guidelines that should be maintained, where applicable, include but are not limited to the following:

- Client Side Counting
- Filtration of Non-Human Activity and Invalid Activity
- Cache Busting
- Differentiate Significant Auto-Refresh versus Human-Initiated Activity
- In-Focus Versus Obstructed Attributes
- Disclosing Material Internal Traffic
- Full Disclosure by Publishers, Portals, Ad-Servers, Ad Networks and Exchanges

4. Customer On-Boarding Controls and Communication

Supply Methods Disclosures Up-Front to Customers

Ad verification services should employ a robust set of processes to inform customers about their services and indoctrinate customers about their specific campaign set-up, monitoring and reporting processes. This process is herein referred to as customer "on-boarding."

Effective on-boarding requires an appropriate level of training materials and user documentation, including help functions (human and automated methods). On-boarding should be conducted prior to verification of a campaign; re-performance of on-boarding functions should be offered periodically and upon significant turnover of responsible customer personnel.

Part of the on-boarding processes should be an explanation of the methods used by the ad verification service to conduct its monitoring, specifically focused on the monitoring that will be used to serve that specific customer. These explanations should be linked to how the results of ad verification will be reported and the meaning and implications of findings, if encountered. For example, implications may include: (1) whether results are projectable to a campaign or not depending on verification data collection method, (2) the reliability or standard error around projectable results, (3) whether issues encountered are likely to reoccur over the life of the campaign by page or domain, and/or (4) likelihood of false positive results by service line based on the prior experience of the verification service. Additionally, known technical limitations, if any, of verification services should be explained.

Obtain Support for Campaign and Verified Parameters:

The ad verification service should obtain proper support for the parameters of the campaign that is the subject of the verification service in advance of service execution. Appropriate sources for this information include: (1) the campaign Insertion Order, (2) the Media Plan of the agency or advertiser, and (3) customer inquiry or (4) customer entered parameters through the ad-verification vendor's user interface. If customer inquiry is a source of these parameters, the customer's representations should be documented by the verification services and written sign-off should be obtained from the customer to confirm a clear understanding of the terms.

The ad verification service should quality-check initial campaign parameters that require entry into its systems by its employees considering appropriate segregation of duty controls. Additionally, timely review by the ad verification service (and customer ideally) of tracking asset viability is required early in the monitored campaign. Where changes are made to the campaign parameters during the campaign, a notification process should be in place for the marketer or agency to inform all parties (vendor partners, ad servers and ad verification services), on a timely basis.

Early Communication with Customers:

The ad verification service is encouraged to communicate timely with customers about monitoring findings; a best practice is to make specific monitoring/reporting tools directly available to customers through automated systems AND communicate findings to ensure customer attention to issues noted.

Open and Transparent Notice and Communication with Seller Organizations is Encouraged

Ad verification services are encouraged to communicate directly with seller organizations during the set-up of monitoring tools associated with the campaign. Also, if verification findings are noted, these should be communicated to the applicable seller organizations, in addition to the verification customer. This closure of the communication cycle enables process improvement by the seller organization and a more open vetting of findings by all parties.

The evidential matter used by the ad verification service to support significant findings should be retained to ensure all parties are able examine such evidence, if requested. Most importantly, the customer should be able to examine this evidence to demonstrate the ongoing value of the verification expenditures. Seller organizations may want to view evidence because they may not fully control all actions of business partners and verification findings may have implications of future process and business decisions. Appropriate evidential matter can consist of: (1) screen copies, (2) tag and URL strings, (3) ad log files, (4) spider/crawler log files, and (5) discussion records for inquiries. If materials have been changed, appended, or otherwise altered in any fashion, such as placing an ad on an illustrative web site as evidence, this should be disclosed.

5. Descriptions of Primary Service Lines

An ad verification service is not required to maintain all service lines described below.

Prevention of Ad-Serving versus Post-Serving Flagging

For certain verification service lines, and for certain violations of insertion orders or campaign media plans, ad-serving prevention ("ad blocking") may be used, rather than a flagging orientation – e.g., Site Context (in less judgmental situations, or where the relevant domain or page-level URL is already on a blocking list the ad verification service maintains), Competitive Separation and Fraud. Both techniques are acceptable, but obviously blocking techniques carry larger implications to buyer and seller because the intended ad serving transaction is interrupted. Ad blocking methods, if implemented, should be disclosed in the campaign Terms & Conditions, and thereby inform all agreeing parties in advance of the campaign.

Methods that prevent the ad from appearing on the user's browser and from being charged to the advertiser that do not involve preventing the ad from being served would also fulfill this goal.

Ad blocking should only be employed when strong evidence of brand damage or violations of insertion orders or campaign media plan has been gathered by the ad verification service; this evidence should be retained and subject to review. An ad verification service should carefully weigh the risk of inappropriate ad blocking against the risk of a potentially damaging ad delivery situation in its decision-making processes. In the event that conclusive evidence is not available (for example, nested I-frames where limited visibility exists) the communication with

the parties involved should allow for a timely vetting of the applicable instances to inform future actions.

In instances when an ad is blocked, notice of this event should be communicated to the seller organization on a timely basis after the event (daily is recommended). In this context a seller organization can be a publisher site, an ad network or an ad exchange that was subject to blocking.

In concept, ad blocking would be less burdensome, and carry less infrastructure risk, if this type of verification function was integrated into ad serving systems, so decisions would be made pre-serve. This type of integration of verification services into advertising infrastructure is encouraged for the future.

Recency of Ad Verification Data

As web pages evolve in a very fast and dynamic manner, fresh data is absolutely necessary for accurate ad verification. Therefore, the timing of the verification service or underlying data assumptions (for example, data associated with content classification judgments made in advance) should be disclosed relative to the timing of the verified advertising campaign if materially different (e.g., greater than 15 days different) and an ad verification services should have stated data staleness policies.

For circumstances where periodic content rating or classification systems are used by verification services for a page or site/domain, a time stamp is recommended to inform users about the age of the service's most recent assessment.

<u>Granularity of Verification Service and Rechecking Conclusions Periodically</u> The verification service should disclose the depth to which the verification service is performed by service line – page level, site or domain level.

In instances where entire sites/domains are indicated by the verification service as noncompliant, regardless of the criteria for a specific campaign, the length of persistence of this indication should be disclosed and sites/domains should be rechecked periodically to ensure they continue to warrant non-compliant status. Additionally, if a site notifies a verification service of a correction or that a non-compliance situation has been addressed, the noncompliance status should be rechecked timely.

Nested I-Frames

The use of I-Frames to facilitate the ad-serving process and maintain page integrity is a commonly accepted practice. In some cases third or forth party serving or ad networks and exchanges can employ nested I-Frames (I-Frames within I-Frames) which can create challenges for verification processes because of browser operational/security restrictions that limit visibility into I-Frames served from outside domains.

Ad Verification vendors should have procedures to classify and report the extent to which advertising served into I-Frames from other domains has been appropriately executed. These

transactions can be very complex to verify, given that multiple nested I-Frames can occur in network or exchange environments and the limited visibility that browser-based tools can have into certain I-Frame transactions served from outside sources. The general nature of the verification tools used to view I-Frame content should be disclosed. The extent to which the ad content served into I-Frames can be assessed by the verification service should be disclosed, and this is sometimes referred to as a "see-through rate." Assessments include whether the appropriate ad content was actually served within the I-Frame, whether the ad was appropriately sized to the I-Frame size, and whether the ad was actually visible (e.g., a single pixel I-Frame would lead to an invisible ad; stuffed or stacked ads can also hinder or obscure viewability). If the denominator in the calculation of the see through rate consists only of a sample of ads, rather than all ads, then the resulting rate should be referred to as a "projected see through rate."

While it is recognized that the vast majority of nested I-Frame arrangements are legitimate, the limited visibility into these transactions can cause an environment where ad-serving issues can occur undetected, hence the necessity to disclose the see-through rate to marketers and agencies. Minimizing the use of nested I-Frame arrangements by publishers, ad networks and ad exchanges is encouraged. Ads that are in I-Frames and where the exact context, viewability or placement cannot be determined should be called out as unclassified, and not assumed to be in negative context, unviewable, or placed contrary to the terms specified for the campaign. The verification client may choose how to address unclassified ads in its contractual Terms & Conditions.

a. Site Context

General Description and Objective

To review the context within the page in which an ad appears, and assess the context against established parameters for the campaign. Generally these parameters are developed through consultation between the ad verification vendor and the customer.

Accepted Methods

- Automated Tracking Methods that Enable Visibility into those Pages on which the Ad Appears
- Crawlers, including agents that execute complex page functions
 - Crawlers are mandated to announce their presence as a non-human agent in all cases.
 - In situations where a site blocks ads from being served to non-human agents (or otherwise alters traditional ad serving processes), the verification service can use an unannounced crawler, but this approach must be disclosed to the seller organization in advance of the campaign, its usage must be severely limited to an immaterial amount, and records should be maintained for validation purposes.
 - Ad verification services that have achieved accreditation/certification of their processes against these guidelines will have had the

circumstances and immateriality of their use of unannounced crawlers validated. Therefore, the disclosures to the seller organization can be more general and less frequent.

- Redirects
- Human Review as a judgmental (non-statistical) sample approach or follow-up to automated methods

For each method above:

- Exclude lists of known non-compliant sites
- Searching Key-Words
- Content Rating Categories
- Custom Criteria
 - o Approved include lists of specifically authorized sites or vendor partners
- Threshold Setting

Standardized Categories

The IAB Network and Exchanges "Contextual Taxonomy" (Exhibit A in the IAB Network & Exchanges Quality Assurance Guidelines) is incorporated into this guideline by reference as a listing of appropriate content categories for sites. However, ad verification services are also concerned with categories of non-compliant sites (potential avoidance categories) for the purposes of classification of exception types across service lines. Potential avoidance categories should be maintained by each ad verification service and clearly disclosed to customers and used in the on-boarding process for campaigns to set expectations for ad verification parameters.

The following presents the general types of potential avoidance categories:

- Adult Content
- Facilitation of Illegal Activities
- Controversial Subjects (i.e., contrary to existing social norms, such as Occult, Taboos, Unusual Lifestyles, etc.)
- Copyright Infringement
- Drugs/Alcohol/Controlled Substances
- Extreme Graphic/Explicit Violence
- Incentivized Manipulation of Measurements
- Hate/Profanity
- Nuisance/Spyware/Malware/Warez
- Political/Religion
- Unmoderated User Generated Content

Each ad verification service can maintain more detailed sub-categories for each of these potential avoidance categories, which will help further refine and differentiate their service.

Ad verification services should maintain a process that provides a periodic pre-evaluation of publisher, network and ad exchange content upon request. This will help inform seller

organizations in advance of problems associated with major types of potential avoidance content categories.

b. Geo-Targeting

General Description and Objective

To review that the ad is served within the geographic areas(s) specified by the terms of the campaign. These terms are established through consultation between the ad verification vendor and the customer.

Accepted Methods

- Human Review (Based on Serving Locations, etc.; Primarily used for follow-up.)
- Use of site-based registration and other user-supplied data containing location information.
 - Registration data should be tracked on the basis of origination date; this data can become less accurate over time.
- Use of third party Geo Vendor IP datasets with appropriate conflict resolution
 procedures or exception thresholds. If the Ad Verification service and the marketer's
 seller partners use the same geo-targeting vendor then exception thresholds should be
 minimal. If different geo-targeting vendors are used, thresholds should be expanded to
 recognize the potentially different (but legitimate) results that can be observed.
- Crawlers, including agents that execute complex page functions (Difficult as a standalone method. Must be qualified as to limits of reliability.)
 - Crawlers are mandated to announce their presence as a non-human agent in all cases.
 - In situations where a site blocks ads from being served to non-human agents (or otherwise alters traditional ad serving processes), the verification service can use an unannounced crawler, but this approach must be disclosed to the seller organization in advance of the campaign, its usage must be severely limited to an immaterial amount, and records should be maintained for validation purposes.
 - Ad verification services that have achieved accreditation/certification of their processes against these guidelines will have had the circumstances and immateriality of their use of unannounced crawlers validated. Therefore, the disclosures to the seller organization can be more general and less frequent.
- Other important considerations:

- The quality of IP-based geo-targeting processes can potentially vary based on geo-targeting vendor used. Geo-targeting vendors, therefore, should be encouraged to subject their processes to independent auditing.
- Frequency of updating geo-targeting data sets can be a source of discrepancies and should be considered when assessing geo-targeting results.
- Ad verification services should recognize that Geo-targeting vendors have differing granular results; these results are better the larger the geographic break. For instance, while results that identify U.S. vs. non-U.S. traffic are often quite accurate, those below DMA level are questionable.
- Ad verification services are encouraged to use different exception thresholds for different geographic levels, given the differing levels of accuracy of each.
- The use of more than one geo-targeting vendor by the ad verification service as corroboration for results can be a best practice.
- IP data used for verification may be made available to clients (marketers or agencies) in case they want to check geo-targeting work independently.
- In the case of significant discrepancies between the ad verification service, seller organization, or buyer's third-party ad server, a reconciliation (as recommended in the IAB's Terms and Conditions document) should be performed to both investigate and troubleshoot the issue.

c. Ad Placement

General Description and Objective

To review that ads are placed on page locations and in ad sizes/executions within the parameters of the terms specified for the campaign. These terms are established through consultation between the ad verification vendor and the customer.

As a separate sub-service, verification services can track ad viewability based on placement, browser settings for the user and scrolling behavior. In situations where viewability cannot be determined, for example within I-frames, the users of the verification service should be informed of the assumptions made. Additionally, vendor partners can be a source of the exact resolutions where ambiguity exists and this information (or averages) can be used in future serving decisions.

Extrapolations or other assumptions used in the process of determining placement and/or viewability of an ad should be fully disclosed along with pre-determined estimates of accuracy (based on independently conducted validation studies by the ad verification service or other third parties). If extrapolated counts are presented with specifically identified counts, metrics originating from each method should be segregated.

Accepted Methods

• Crawlers, including agents that execute complex page functions (Difficult as a standalone method. Must be qualified as to limits of reliability.)

- Crawlers are mandated to announce their presence as a non-human agent in all cases.
- In situations where a site blocks ads from being served to non-human agents (or otherwise alters traditional ad serving processes), the verification service can use an unannounced crawler, but this approach must be disclosed to the seller organization in advance of the campaign, its usage must be severely limited to an immaterial amount, and records should be maintained for validation purposes.
 - Ad verification services that have achieved accreditation/certification of their processes against these guidelines will have had the circumstances and immateriality of their use of unannounced crawlers validated. Therefore, the disclosures to the seller organization can be more general and less frequent.
- Automated Tracking Methods
- Human Review as a judgmental (non-statistical) sample approach or follow-up to automated methods

Note: Although some ad verification organizations have the ability to perform ad placement validation, this service may have certain technical limitations; accordingly, section targeting can vary from seller organization to seller organization depending on how content is categorized into channels.

Types of Ad Placement Issues Typically Evaluated:

Multiple Ads: Several ads from the same campaign are served in a single page view, contrary to the terms of the campaign.

100% Share of Voice (or Roadblocks): 100% Share of Voice involves setting a campaign to appear on 100% of a specific page or section of a site. Incidents are evaluated based on whether other (non-campaign) ads appeared on that page or section of the site. Roadblocks involve placements of more than one ad unit that are served on a site/page together. Determining whether 100% share of voice actually occurs over a specified period is a difficult technical process (also, generally not achievable solely by human review) – the ad verification service should fully disclose its method for making such determinations and the accuracy/risks associated with its results for these specialized types of processes.

Section/Channel Targeting: When a campaign is reserved to a section of a site or a specific site channel. Incidents are evaluated based on whether ads for the campaign have been served elsewhere.

Frequency capping: Placing certain pre-specified limits on the number of ads served based on prior serving instances to the same browser/user, or maintaining certain aggregate limits to the number of common-user ads served across the campaign.

d. Competitive Separation

General Description and Objective

To review that an ad is not inappropriately juxtaposed with a competitive advertisement, as defined in the media plan for the campaign.

Accepted Methods

- Crawlers, including agents that execute complex page functions (Difficult as a standalone method. Must be qualified as to limits of reliability.)
 - Crawlers are mandated to announce their presence as a non-human agent in all cases.
 - In situations where a site blocks ads from being served to non-human agents (or otherwise alters traditional ad serving processes), the verification service can use an unannounced crawler, but this approach must be disclosed to the seller organization in advance of the campaign, its usage must be severely limited to an immaterial amount, and records should be maintained for validation purposes.
 - Ad verification services that have achieved accreditation/certification of their processes against these guidelines will have had the circumstances and immateriality of their use of unannounced crawlers validated. Therefore, the disclosures to the seller organization can be more general and less frequent.
- Automated Tracking Methods
- Human Review as a judgmental (non-statistical) sample approach or follow-up to automated methods

Standardized Categories

The IAB Network and Exchanges "Contextual Taxonomy" (Exhibit A in the IAB Network & Exchanges Quality Assurance Guidelines) is incorporated into this guideline by reference as a listing of appropriate content categories for sites.

General vs. Specific definitions

- Verification services are strongly encouraged to share complete information about the parameters to be used to determine competitive separations as part of the initial communication process that occurs among all participating parties at the launch of the campaign (see Section 4 on "Open and Transparent Notice and Communication with Seller Organizations...")..
- SIC codes can provide ancillary evidence in certain circumstances.

e. Fraud Detection

General Description and Objective

To review for fraudulent or potentially fraudulent activity involved in the serving of the advertisement.

Accepted Methods

- Human Review (Necessary to make majority of decisions and appropriate follow-up. Generally part of several methods executed.)
- Automated Assessment Methods Leads Surfaced
 - o Inappropriately Sized or Invisible I-Frames
 - o Systematically obscured content or misdirected traffic Placement Fraud
 - o Purposeful Counting Manipulation Fraudulent Traffic

Material and/or Systematic Cases Generally Require Special Communication or Notice between the Vendor Partner and the ad verification customer

• Timely communication is critical

Qualifier: Fraud Intent is often difficult or impossible to determine, so cases of reported fraud should be limited to those issues specified above or other "clear" cases.

f. Other Service Lines Available

This guideline is not intended to hinder the marketplace development of additional Ad Verification service lines. The following is a general taxonomy that can be used to classify additional Ad Verification service lines, as they are developed:

• The observation method – Individual / Sample

Observation level considers whether the observation is on the behavior associated with the incident type on an individual transaction level through a pixel or a beacon (individual), or on a sample basis using transactions observed by panel / crawler.

• Type of decision - Discrete / Classification

Evaluation criteria considers whether the verification company is assessing the behavior associated with the incident type on a discrete or concrete "pass" / "fail" set of criteria where the criteria either "are" or "are not" present, or on the basis of a classification or categorization process, where the criteria must be evaluated and classified, and the decision is based on whether a component of the transaction is either "in" or "not in" the designated classification.

Source of Criteria – Specified / System settings (by the Verification Provider)

Source of criteria considers whether the advertiser or the verification provider system settings are the party responsible for identifying the specific conditions of the evaluation criteria that will be deemed either a "pass" or "fail" for the observation. For example, the Advertiser is responsible for determining which content classifications should or will be considered inappropriate content for the campaign, but the verification provider is responsible for determining at what pixel location an advertisement will be considered below the fold.

Individual / Discrete / Specified Description:

These incident types are those where the analysis and decision is made on an individual transaction level using the pixel-based methodology. Specific and discrete decision criteria are in place for these types of incidents and the conditions that are deemed to either "pass" or "fail" the decision are specified by the advertiser.

Example:

Advertising served to domains that have been added to a black list of domains by the advertiser ("On Black List"), as well as advertising served to domains outside or other than those listed by the advertiser in a white list ("Not on White List").

Individual / Classification / Specified Description:

Similar to the above, the analysis and decision is made on an individual transaction level for these incident types, and those conditions that are deemed to either "pass" or "fail" the decision are specified by the advertiser. However, in this group, a classification process is used to categorize a component of the transaction, which is then assessed against the decision criteria specified by the advertiser.

Example:

Advertising served to domains that have been classified as containing certain content types, where the advertiser has set a decision criteria that their advertising campaign should not displayed on sites classified as certain content types ("Inappropriate Content").

Individual / Discrete / System Setting Description:

These incident types are also based on analyses and decisions made on an individual transaction level, where specific and discrete decision criteria are in place; however, in this grouping, those decision criteria are based on a rule set that has been determined by the Verification Provider and implemented as a system setting.

Examples:

These incident types include situations in which there is more than one impression from the advertiser, delivered on a single page ("Double-Serving").

Individual / Classification / System Setting Description:

These incident types are made at the transaction level, with a classification process being used to categorize a component of the transaction, which is then assessed against the decision criteria based on parameters that have been determined by the Verification Provider and implemented as a system setting.

Example:

Situations such as the "Below the Fold" incident, where the crawler is used to identify ad positions on pages and classify the position as above the fold, below the fold or extremely below the fold and then as ads are served to those positions as identified by the pixel process, the individual transactions are classified based on the classification of the position in which they were delivered.

Sample / Discrete / System Setting Description:

In these situations, the incidents are identified solely through crawler activity, which is therefore, on a sample basis. For this grouping, the evaluation criteria are considered 'Discrete' as a single "non-compliant" observation is sufficient to trigger an incident. The rule-set used to define an observation as "non-compliant" is determined by the verification provider and implemented as a system setting.

Example:

These incident types include situations in which a grouping of ad spots that should be delivered together were not delivered as a group, but other advertising from a different advertiser was included in at least one of the groupings positions ("Road Block", or "100% Share of Voice").

Additionally, this would include situations in which advertising should be limited to a specific subset of the domain, but campaign advertising was observed outside the specific subset ("Section/Channel Targeting"). Also considered within this type of situation would be situations in which the crawler observed multiple impressions from a campaign within a time period that exceeded the frequency capping parameters ("Frequency Capping"), and situations in which malware or adware running on the site, situations of hidden ads, or other traffic/advertising manipulation techniques ("Fraud Detection").

Sample / Classification / System Setting Description

In this last grouping, incidents are identified through crawler activity, based a rule-set used to define observations as "non-compliant" that is specified by the advertiser; however, multiple observations of the activity must be noted to classify the activity as "non-compliant".

Example:

This incident type includes situations in which an advertiser has identified specific competitors the campaign should not share a page with (i.e., their campaign should not be served on a page that also serves an advertisement from the listed competitors), but the crawler identifies multiple situations (exceeding the system threshold of five occurrences) where the campaign was served on pages alongside the indicated competitors ("Competitive Separation").

Important Note: Additional Ad Verification service lines are subject to full disclosure requirements as specified throughout this guideline and should be subject to peer review

auditing procedures. Additional service lines should be subject to testing by the ad verification service internally to ensure methods function as designed and this information should be available to peer review auditors.

6. Data Capture

Real (Technical) Data Capture Required

Ad verification services are required to gather evidence of campaign compliance, whether automated or manual. This implies that real (technical) and regimented data capture processes are required. Conjecture or verbal evidence is not considered acceptable for ad verification. As noted in Section 2.a, other IAB documents centered on business aspects of advertising transactions, such as Terms & Conditions or guidance issued by the IAB Data Council, should be referenced for guidance on data rights and ownership.

As specified above, automated tracking assets and non-integrated review procedures are both acceptable methods, although full disclosure should surround each selected method. If content ratings systems or tools are employed, these conclusions should be based on actual review of content for rated sites/pages.

Conclusions about sites/pages should not be made in perpetuity; accordingly periodic rechecking of results is recommended. Re-checking should be conducted at minimum every month, although more frequent checking is encouraged.

Initiating Data Capture

Verification services should create a monitoring plan for each customer campaign, which specifies the monitoring approach, timing and reporting methods in advance. Monitoring plans can be standardized for service lines; however, non-integrated approaches (crawlers, spiders, human review, etc.) require more documentation (especially timing and levels of testing) because of the necessity to report results with disclosure of implications.

Data capture should be initiated by appropriately trained and supervised personnel, regardless of whether these personnel work for the verification service or customer (for example, personnel applying tags or beacons). Each verification service should have adequate systems and process documentation to ensure monitoring in accordance with management's intentions and monitoring using regimented, standardized approaches.

Entry of campaign parameters into verification systems should be subject to quality control procedures, to minimize entry at the verification service as a source of error.

Internal Testing and Support of Methods

Ad verification services should test and provide support for the effectiveness of the methods they use. This testing should be periodically reproduced to ensure continued functionality with the complex, dynamic Internet advertising environment. Effectiveness of methods used is a required disclosure for ad verification services, so these tests feed into these disclosures.

Identifying and Flagging Verification Vendor Processing Failures

Errors or processing failures that originate at the ad verification service that impacted monitoring results should be disclosed, with an accompanying disclosure of the materiality of the issue on the findings reported. This disclosure should be maintained across the entire campaign for all campaigns impacted.

Each ad verification service should have documented error disclosure and reissue policies, which standardize insofar as possible, the decisions surrounding informing customers and seller organizations about errors discovered.

7. Data Inspection; Conflict Resolution

Requirement to Inspect Ad Verification Data Early in Campaign Processing

Buyer organizations (agencies or marketers) are strongly encouraged to supply verification information prior to campaign initiation to facilitate timely and accurate entry of verification parameters as well as early communication of initial performance.

As specified earlier in these guidelines, early review of campaign monitoring results is strongly encouraged by all parties. For the ad verification service, this is a requirement – with "early" being defined as prior to twenty percent (20%) of expected campaign volume, or as soon as possible and within no more than five business days from the initiation of the campaign, when all required verification information has been received by the verification service.

Along with ad verification service review, early communication of significant findings to the customer is encouraged. Early identification and communication of results minimizes material conflicts among buyers and sellers since timely correction can be made, assuming parties are acting in good faith. Special communication procedures are necessary in the cases where fraud is suspected; since legal or other strong actions may be required by the customer, and strong evidential matter is necessary, special communication and documentation are required.

Beyond early confirmation and set-up error detection procedures, performance communication to ad verification service users should be ongoing via periodic reports or through an automated reporting dashboard.

<u>Communication with Verification Publisher or Ad Network Regarding</u> <u>Exceptions</u>

As specified earlier in these guidelines, closing the communication cycle with seller organizations about monitoring findings is encouraged. This may require customer permission or may in fact be executed by the customer, but in all cases the verification service should have follow-up procedures to enable full communication to take place, or if not, adequate reasoning for perpetuating error situations.

The verification service is encouraged to maintain a process and registry of significant exception-types for verified campaigns, which should be appended for known causes, vendor partner comments and resolution.

At Certain Levels and For Certain Significant Exceptions, Human Intervention Required

For material errors and in all cases of suspected fraud, these guidelines require some type of human review and/or human agreement with observations derived from automated tools. One key reason for human review is to identify false positives (identifying a non-compliance situation where one does not exist) insofar as possible prior to communication of issues to ad verification customers. Material errors and fraud can have implications on the continuity of business relationships, so it is implied that a high level of certainty surround the reported results from the ad verification service.

Evidence associated with material errors and fraud should be retained for at least twelve (12) months after reporting of the results to the customer; in the case of fraud, the evidential matter itself should be available upon request for release to the customer for retention also.

It is important that verification services have strong evidence of suspected fraud (including human review) before communication to the marketer, given the ramifications of these types of situations on business relationships.

General Data Retention for Verification Services

As discussed in prior sections of this guideline, it is important for ad verification services to maintain an audit trail of findings to enable support, correction and conflict resolution processes among participants. These records should be retained in sufficient detail for a reasonable period post verified campaign (suggested minimum of 60 days from the date first reported). In cases where there is a known dispute, records should be retained until the dispute is resolved.

As noted above, for material errors and cases of suspected fraud, this retention requirement is lengthened to 12 months after campaign reporting.

8. Disclosures

A key attribute of trusted ad verification data is the full disclosure of the basis for producing that data. In accordance with accepted industry practice, Ad Verification Services should therefore disclose pertinent aspects of their process on a routine basis.

The preparation of a written Description of Methodology (DOM) to house the disclosures specified herein is required to facilitate distribution of this information. The DOM should be maintained with currently used procedures; a monthly or more frequent update is suggested.

The following presents the suggested contents for the DOM:

General Reporting Parameters for Accumulated Data

- Metrics/Campaign Parameters Eligible for Verification
- Reporting Format and Frequency
- General Reporting Parameters Timing
- Reliability of Results by Service Line
 - Significant sources of sampling or non-sampling errors
- Limitations on Data Use
- Handling of Partial Records, Ascription or Ambiguity
- Summary of Internal Quality Control Checks

Methods-Oriented Disclosures

- By Service Line:
 - Automated (Through System) Tracking Methods
 Tags, Beacons, Cookies, etc.
 - o Crawlers
 - o Human Review

The following presents the suggested contents for disclosures related to a specific verification project:

Disclosures for Each Specific Verification Project (To Customer)

- Name of Client and, if applicable, Campaign and Marketer
- Name of Measurement Report
- Type of Parameters Verified
- Time Periods Included
- Days Included
- Basis for Verification
 - Methods of Data Collection
 - o Census/Sampling/Projections Used
 - Census: Percent of total campaign able to be verified (for example, placement above or below the fold or site URL identification)

- Statistical Sample: Sample size, time-period sampled out of total campaign run, confidence limits or relative error
- Judgmental (non-statistical) Sample: Selection method, sample size, time-period sampled out of total campaign run,
- Geographic Areas Covered
- Significant Sub-Groupings of Data
- Editing, Weighting or Data Adjustment Procedures Used
- Evidence of Exceptions, Screen Shots, etc.
- Computations, if any
- Reliability of Results
- Limitations on Data Usage

Reporting to Vendor Partner (seller organization)

• Similar in nature to reporting to customer, only generally vendor partner reporting is often more frequent and, at least initially, can be provided earlier than reporting to the customer for conflict resolution purposes. In cases where no conflicts exist, simultaneous reporting to customer and seller organization is encouraged.

9. Auditing/Validation Guidance

Third-party independent auditing is encouraged as a periodic validation of verification services that are used in the buying and selling process. This auditing is recommended to include procedures covering both verification methods and processing/controls as follows:

1. Verification Methods: Independent validation of ad verification activity for a defined period or set of campaigns. Validation of ad verification activities generally includes a basic process review and risk analysis to understand the verification methods and audit tests including: (1) functioning of transaction integration methods, (2) down-stream authentication methods (seeing into nested I-Frames, etc.), (3) recalculations performed, (4) filtration for specified campaign parameters, (5) testing of geo-targeting or other types of targeting employed, (6) assessment of content classification methods, and (7) result accumulation and summarization procedures. If sampling, manual review or automated agents are used in ad verification activities, these processes should be observed and tested for efficacy and full disclosure. Activity audits can be executed at the campaign level, validating the activity associated with a specific ad creative being delivered for compliance with campaign terms or other pre-specified criteria.

2. Process/Controls: Examination of the internal controls surrounding the conduct of the ad verification service (on-boarding, initiating the campaign verification, data accumulation, follow-up and reporting), as well as any internal controls associated with the verification service itself. Process auditing includes examination of the adequacy of controls used to ensure reasonable conclusions and findings from the ad verification service.

All third-party audits should verify the adequacy of disclosures and reports provided to customers in accordance with requirements within these guidelines.

Although audit reports can be issued as infrequently as once per year some independent thirdparty audit testing should extend to more than one prior during the year to assure internal controls are maintained. The frequency of the necessary testing and internal control evaluations is dependent on the quality of the internal control environment. Audit reports should clearly state the periods covered by the underlying audit testing and the period covered by the resulting opinion. All ad verification applications used in the buying and selling process should be certified as compliant with these guidelines at minimum annually.

<u>Guidance for Advertising Agencies, Marketers or other Buying Organizations</u> If buying organizations modify or otherwise manipulate methods (self-directed inputs) or reports from certified ad verification services, auditing of these activities should be conducted.

A listing of certified and accredited ad verification services is maintained by the IAB at its website – www.iab.net.

10. Conclusions and Contacts

This document represents the combined effort of the IAB, MRC, Participating Ad Verification Services and many other organizations to bring consistency and increased understanding to the methods for conducting Ad Verification services. We encourage adoption of these guidelines by all Ad Verification Services and their customers that intend to rely on ad verification data and we encourage the use of these guidelines by all users of this data to facilitate a common understanding.

For further information or questions, please contact the following individuals:

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