



**Interactive Advertising Bureau
Mobile Marketing Association
Media Rating Council**

Mobile Web Advertising Measurement Guidelines

Adapted from IAB (US) Ad Impression Measurement Guidelines

**Version 3.0 Final Release
April 2016**

IAB MMA MRC Mobile Web Advertising Measurement Guidelines, v. 3.0

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1.0 Overview

The Mobile Web Advertising Measurement Guidelines have been developed by the membership of the Mobile Marketing Association (MMA), the IAB (U.S.), and Media Rating Council (MRC) in close collaboration with the GSMA and other stakeholders. Contributors to these guidelines are representative of the key parties in the mobile marketing ecosystem, and include handset manufacturers, wireless operators, ad servers, content providers, agencies, brands and technology enablers.

While these guidelines follow the general parameters and principles of the Advertising Measurement Impression Guidelines previously issued by IAB (U.S.) for online advertising measurement, and are similar to them in many respects, this document has been authored with a specific focus on the unique attributes of Mobile Web advertising. Thus, while many portions of this document will be similar to the existing IAB Guidelines for online measurement, specific guidance in certain other areas will differ (yet will follow the same general principles) because of this consideration of the applicability to the mobile web environment.

Applicability of these guidelines, as opposed to the original IAB Advertising Measurement Guidelines, generally should be based on the type of ad served. For instance, ads served from a mobile version of a web site, or versions of ads specifically designed to be served to a mobile device or in a mobile web environment, should apply these Mobile Web Measurement Guidelines for counting purposes.

This set of guidelines is intended to cover measurement of WAP/Mobile Web advertising activity. Measurement of other forms of mobile advertising activity, including messaging applications (SMS and MMS), mobile applications, and various forms of mobile audio and video (including streamed, downloaded, broadcast and progressive audio and/or video), is not within the scope of these guidelines.

This document is principally applicable to mobile marketers, wireless operators, mobile publishers and ad serving organizations, and is intended as a guide to accepted practice. Additionally, planners and buyers of mobile media advertising can use this document to assist in determining the quality of measurements.

2.0 Measurement Definitions

Advertisements served on mobile devices are currently measured in various ways depending on the marketing channel used and its associated measurement capabilities.

2.1 Ad Impressions

An Ad Impression across all mobile marketing channels is the measure of the delivery of an advertisement from an ad delivery system in response to a user request. There should be reasonable assurance that the ad was rendered on the device in order to count it as a valid ad impression.

2.2 Ad Impression Measurement Approaches

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Two methods are currently used to deliver ad content to the user – server-initiated and client-initiated. Server-initiated ad counting uses the site’s web content server for making requests, formatting and re-directing content. Client-initiated ad counting relies on the user’s browser to perform these activities (in this case, the term “client” refers to a user’s browser).

Client side measurement involves a recognition on the client side of the successful delivery of an Ad Impression, and this information is communicated to a counting server for reporting.

Server side measurement involves the recognition on the ad server side that an Ad Impression has been delivered, but with no assurance that the ad was actually rendered on the user’s browser.

Client side measurement is the only acceptable method for the counting of valid ad impressions.

Please refer to Appendix A of IAB’s Interactive Audience Measurement and Advertising Campaign Reporting and Audit Guidelines, v.6.0b (U.S. version) located here <http://www.iab.com/wp-content/uploads/2015/06/Ad-Impression-Measurment-Guideline-US.pdf> for diagrams of examples of valid implementations of Client-initiated counting approaches. *Please note that effective as of March, 2016, only those examples where counting follows ad content delivery are acceptable client side measurement approaches for mobile web ad impression measurement. Implementations in which counting precedes ad content delivery are no longer acceptable for mobile web ad impression measurement.*

2.3 Tracking Assets

A tracking asset is any piece of content associated with an ad or the page on which an ad appears that is designated to serve as the “trigger” by which the ad is counted. The content that serves as a tracking asset often may be, but is not limited to, a 1x1 pixel image, a 302-redirect, a Javascript code, or the ad itself.

2.4 User Ad Requests

A user ad request is the result of an active or passive act on the part of the user of a mobile marketing channel. The user may explicitly call for the ad to be delivered, or a request to the ad delivery system is triggered based on other user’s actions.

2.5 Ad Delivery

Please refer to Appendix A of IAB’s Interactive Audience Measurement and Advertising Campaign Reporting and Audit Guidelines, v.6.0b (U.S. version) located here <http://www.iab.com/wp-content/uploads/2015/06/Ad-Impression-Measurment-Guideline-US.pdf> http://www.iab.net/campaign_measurement_audit for diagrams of examples of valid implementations of Client-initiated counting approaches. (See note in Section 2.2 concerning valid implementations as of March 2016).

2.6 Mobile Device

A handset, tablet, or other communication device used to access the internet wirelessly, usually through a mobile carrier or wifi network. Traditional PCs and laptops are not considered mobile devices for the purposes of these guidelines.

3.0 Ad Measurement Guidelines

Ad impressions are measured on the Client (device) Side. Client side ad impression measurement is required because this approach to counting occurs when the client renders the ad request, which occurs at a later stage in the cycle and therefore is likely to mean that the user had the greatest possible “opportunity to see” the ad.

This section provides recommendations and considerations in counting the number of advertising impressions.

3.1 Ad Impression Tracking

The following details are key components of client-side measurement:

1. A valid ad impression may only be counted when an ad counter receives and responds successfully to a request for a tracking asset from a client. This count happens after the initiation of retrieval of underlying page content. For client-side ad serving, the ad content itself could be treated as the tracking asset and the ad server itself could do the ad counting.
2. A successful response by the ad counter can include but is not limited to:
 - a) Delivery of a “beacon,” which may be defined as any piece of content designated as a tracking asset. Beacons will commonly be in the form of a 1x1 pixel image, but this Guideline does not apply any restrictions to the actual media-type or content-type employed by a beacon response; or.
 - b) Delivery of a “302” redirect or html/ javascript (which doubles as a tracking asset) to any location,;
 - c) And delivery of ad content
3. Measurement of any ad delivery may be accomplished by measuring the delivery of a tracking asset associated with the ad.

As a recommendation, sites should ensure that every measured ad call is unique to the page. There are many valid techniques available to do this, including the generation of random strings directly by the server, or by using JavaScript statements to generate random values in beacon calls.

3.2. Compound Tracking

It is allowable for one tracking asset to register impressions for multiple ads that are in separate locations on the page, as long as reasonable precautions are taken to ensure that all ads that are recorded in this fashion have loaded prior to the tracking asset being called (for example, the count is made after loading of the final ad). This technique can be referred to as “compound tracking.”¹ For example, an ad group may be counted if reasonable assurance exists that all grouped ads load prior to counting, such as through the placement of the tracking asset at the end of the HTML string.

3.3 Auto-Refresh

Auto-Refresh of ads or pages may be either user-initiated or site-initiated.

If a user initiates and sets auto-refresh parameters, no adjustments generally are necessary for the resulting total ad impression counts. However, if auto-refresh is site-initiated (that is, the user need take no action to initiate the automatic refreshing of ads on the site), then, if material, the ad impressions resulting from the auto-refreshing of ads should be segregated for reporting purposes from total impression counts. In addition, in order to contribute to impression counts, the rates at which ads are auto-refreshed (i.e., the frequency with which ads are changed within a given time frame) should be considered for reasonableness, taking into consideration the type of content with which these ads appear (for example, ads on leaderboards on a sports-oriented site might be reasonably expected to have a higher auto-refresh rate than other types of content which are not updated as frequently).

4.0 Enhancing Ad Impression Tracking Accuracy

Those advertisements that are delivered to mobile users without an accompanying request for the ad (such as with pushed content) should not be counted as ad impressions unless there is evidence that the ad rendered on the device. This principle should also apply to idle screen ads, offline ads, and cached ads.

The following techniques are recommended in order to ensure accuracy in ad impression measurement:

4.1 Cache Busting

In some cases an ad can be served from a device’s cache, and there is a risk that the client or server will not record the Ad Impression. Cache busting techniques should be in place to ensure that overall impressions are not undercounted due to the delivery of cached responses to user ad requests.

¹ It should be noted that legacy devices that do not support Javascript, or devices in which Javascript is disabled, may not have the capability to allow for compound tracking.

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Cache busting techniques should be used for all sites and ad serving organizations. The following techniques are acceptable:

1. HTTP or WAP Header Controls

The ad counter should employ standard headers on the response, in order to minimize the potential of caching a time-sensitive advertisement. For example, these standard headers could include one or more of the following, as applicable:

- Expiry
- Cache-Control
- Pragma

2. Random Number assignment techniques to identify unique serving occurrences of pages/ ads.

Publishers and ad serving organizations should fully disclose their cache busting techniques to buyers and other users of their data.

4.2 Filtration

Filtration of site or ad-serving transactions to remove non-human activity is highly critical for accurate, consistent counting. Filtration guidelines consist of two approaches: (1) filtration based on specific identification of suspected non-human activity, and (2) activity-based filtration (sometimes referred to as “pattern analysis”). Each organization should employ both techniques in combination. ***Organizations are encouraged to adopt the strongest possible filtration techniques.***

Minimum Requirements:

The following explains minimum filtration activity acceptable for compliance with this guideline:

4.2.1 Specific Identification Approach:

- Robot Instruction files are used
- URL, user agent, and client browser information is used to exclude robots and to include known browser types. Such “dual pass” approaches to specific identification and the exclusion/inclusion of certain traffic should be based on industry accepted lists, to the extent these exist (such as is the case in traditional online with IAB’s Industry Robot list and the list of known browser types that is also published by IAB). Other approaches may also be used, but they should not be used in lieu of the aforementioned without evidence they are more effective.
- Disclose company-internal traffic on a disaggregated basis. If company-internal traffic is material² to reported metrics and does not represent exposure to ads or content that is

² “Materiality” is a (generally quantitative) threshold as contextually determined by an auditor, above which a misstatement would be judged to exert a significant impact on the business decisions made through the use of the overall information. As an example, a threshold level of 5% of total traffic counts might be used to assess the materiality of company-internal traffic

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qualitatively similar to non-internal users, remove this traffic. Additionally remove all robotic or non-human traffic arising from internal sources, for example IT personnel performing testing of web-pages. A universal or organizational identification string for all internal generated traffic or testing activity is recommended to facilitate assessment, disclosure or removal of this activity as necessary.

4.2.2 Activity-based Filtration:

- In addition to the specific identification technique described above, organizations are required to use some form of activity-based filtration to identify new robot-suspected activity. Activity-based filtration identifies likely robot/ spider activity in log-file data through the use of one or more analytical techniques. Specifically, organizations can analyze log files for:
 - Multiple sequential activities – a certain number of ads, clicks or pages over a specified time period from one user;
 - Outlier activity – users with the highest levels of activity among all site visitors or with page/ad impressions roughly equal to the total pages on the site;
 - Interaction attributes – consistent intervals between clicks or page/ad impressions from a user;
 - Other suspicious activity – users accessing the robot instruction file, not identifying themselves as robots. Each suspected robot/spider arising from this analysis requires follow-up to verify the assumption that its activity is non-human.

Sites should apply all of these types of techniques, unless in the judgment of the auditor and management (after running the techniques at least once to determine their impact), a specific technique is not necessary for materially accurate reporting. If a sub-set of these techniques are used, this should be re-challenged periodically to assure the appropriateness of the approach.

Activity based filtration must be applied on a periodic basis, with a minimum frequency of once per quarter. Additionally, activity based filtration should be run on an exception basis in order to check questionable activity. In all cases, organizations must have defined procedures surrounding the schedule and procedures for application of this filtering. The intent of activity-based filtration is to use analytics and judgment to identify likely non-human activity for deletion (filtration) while not discarding significant real visitor activity. Activity-based filtration is critical to provide an on-going “detective” internal control for identifying new types or sources of non-human activity. An organization should periodically monitor its pattern analysis decision rule(s) to assure measurements are protected from robot/spider inflationary activity with a minimal amount of lost real visitor activity. Additionally, publishers and ad serving organizations should fully disclose the significant components of their filtration process to buyers and other users of their data.

counts; if internal traffic exceeds this threshold, these counts would be excluded from the overall traffic counts (in practice, consideration of the differential nature of such internal traffic may also play a role in a decision to exclude these counts).

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4.2.3 Proxy Servers

The use of proxy servers is particularly prominent in mobile web, which also adds to the complexity of measurement in the mobile web environment. The employment of effective cache busting techniques is crucial to ensure that ad impressions are not undercounted because of ads served from a proxy server's cache in response to a user request.

4.2.4 Pre-Fetch Activity

Filtration procedures should include processes to remove self-announced pre-fetch activity from impression counts.

4.3 Display Filtering

If there is reason to know that an ad could not have been seen by the user (for instance, if it is determined that the ad was not within view of the user), this also should be considered when tracking impressions. Such impressions for ads that are reasonably known not to have been viewed should not be counted as valid ad impressions.

As with online measurement, ad impressions in mobile measurement may be either served impressions or viewable impressions. While measuring on the basis of viewable impressions is preferred because of the greater likelihood that the ad will have an opportunity to be seen by the user, these guidelines do not require reporting of viewable impressions at this time because of the technical limitations that currently exist to such measurement in the mobile environment. Unlike with online, which is more advanced in terms of the technology needed to determine whether or not an ad is viewable, more technological development is needed in mobile to get to a similar state. Thus, while the development of such technology to determine mobile viewable impressions is strongly encouraged, and it is anticipated that this will eventually become a requirement in the mobile area, these guidelines do not require the reporting of viewable impressions at this time.

4.4 Rich Media Ad Impressions

As with display ad impressions, the measurement of Rich Media ad impressions should occur on the client side. In addition to the difficulties noted above in regard to client-side counting of mobile display ad impressions, client-side counting of mobile Rich Media ads is further complicated by limitations on the number of redirects allowed by some carriers. Regardless, measurers should count as close to the "opportunity to see" as possible, and should not report these impressions unless they have been measured using a client-side approach.

- Rich Media providers should tag ads so that they are available to be counted only when they are played.
- Alternative ad creative should be made available for delivery to those users with disabled Rich Media functionality.
 - While this alternative creative is counted as an ad impression, it should be segregated for reporting purposes from Rich Media ad impressions.

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With certain technologies, such as Ajax for mobile and similar executions, changes to page content and the serving of advertisements are not always clearly linked. Therefore, other methods are needed to trigger the counting of ad impressions. As the use of such technologies in mobile implementations becomes more prevalent, additional specific guidance for its measurement may be required. Until then, the user activity requirements associated with Ajax for mobile or similar executions in these definitions should be patterned after the IAB's Rich Internet Application Guidelines. For further information on user activity requirements in Ajax applications, see Section 2 of the IAB's Rich Internet Application Guidelines at http://www.iab.com/wp-content/uploads/2015/06/Rich_Internet_Application_v2.pdf.

5.0 Click Measurement Considerations

5.1 Click Measurement

Ad impressions related to Click Measurement are those ads that include clickable content; that is, content on which the user may click to obtain additional content or to initiate a transaction or other activity. Comprehensive mobile click guidelines are beyond the scope of this document. Those interested in measuring mobile clicks are advised to follow the same general principles as are spelled out in the *IAB Click Measurement Guidelines* (see <http://www.iab.com/wp-content/uploads/2015/06/click-measurement-guidelines2009.pdf>) until such time as new guidelines for clicks that are specific to the mobile web environment are developed.

Below is general guidance for the counting of clicks that may be applied to mobile web.

- In the event that a click transaction may be initiated by user activity that is in proximity to the clickable ad, but not specifically on the ad, the specific parameters used (i.e., the measurement of the boundaries surrounding the ad that can result in a completed click) should be disclosed.
- Definitions specific to click measurement include:
 - "Click" (or "Click Through"), referring to a user initiated action on an advertisement or search result that results in transferring the user from a publisher site to an advertiser site.
 - "In-Unit Clicks," which, similar to the above, involve a user initiated action on an advertisement but does not result in a transfer from the publisher site.

At present, there are differing methods used for the counting of clicks. Regardless of the method used, these methods should be fully disclosed. In addition, the development and use of unique click identifiers is encouraged. Also, processes should be established to filter and exclude invalid clicks from click measurement counts.

6.0 General Reporting Guidelines

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General reporting parameters (dayparts, weekparts, time zones, etc.) provide for consistency and comparability. These should be based on the logical application of information about the usage patterns of the medium.

In order to provide for more standardization in mobile web Measurement reporting, the following general reporting parameters are recommended. Note that these are only two of the possible reporting parameters that may be used. If parameters in addition to time and location are reported, similar rules should be defined and applied.

6.1 Time

Day – 12:00 midnight to 12:00 midnight

Time Zone – Full disclosure of the time-zone used to produce the measurement report is required. It is preferable, although not a current compliance requirement, for certified publishers or ad servers to have the ability to produce audience reports in a consistent time-zone so buyers can assess activity across measurement organizations. For US-based reports it is recommended that reports be available on the basis of the Eastern time-zone, for non US-based reports this is recommended to be GMT.

Week – Monday through Sunday

Weekparts – M-F, M-Sun, Sat, Sun, Sat-Sun

Month – Three reporting methods: (1) TV Broadcast month definition. In this definition, the Month begins on the Monday of the week containing the first full weekend of the month, (2) 4-week periods – (13 per year) consistent with media planning for other media, or (3) a calendar month. For financial reporting purposes, a month is defined as a calendar month.

Additional Recommendation: Dayparts – Mobile usage patterns need further analysis to determine the usefulness of establishing effective and logical standardized reporting day parts. We encourage such analysis to determine the need for standardization of this measurement parameter.

6.2 Location

If information about the geographic location of the users is collected and reported, any limitations to the methods used should be disclosed. Ambiguities in wireless operator routing should be accounted for in location determination and estimated through processes derived from carrier/ad server cooperation.

7.0 Disclosure Guidance

Media companies and ad serving organizations should fully disclose their ad impression recording process to buyers and other users of the ad impression count data. An organization's methodology for accumulating mobile advertising measurements should be fully described to users of the data. Specifically, the nature of

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measurements, methods of sampling used (if applicable), data collection methods employed, data editing procedures or other types of data adjustment or projection, calculation explanations, reporting standards (if applicable), reliability of results (if applicable) and limitations of the data should be included in the disclosure. (See *Appendix A* for a sample *Description of Methodology* document)

The following presents examples of the types of information disclosed.

Nature of Mobile Advertising Measurements

- Name of Property, Domain, Site, Included in the Measurement
- Name of Measurement Report
- Type of Measurements Reported
 - Time Periods Included
 - Days Included
 - Basis for Measurement
 - Geographic Areas
 - Significant Sub-Groupings of Data
 - Demographic categories
- Formats of Reported Data
- Special Promotions Impacting Measurements
- Nature of Auditing Applied and Directions to Access to Audit Report
- Sampling/Projections Used
 - Sampling Methods Used for Mobile Devices not Accepting Cookies or Browsers with New Cookies
 - Explanation of Projection Methods

Data Collection Methods Employed

- Method of Data Collection
 - Logging Method
 - Logging Frequency
 - Logging Capture Point
- Types of Data Collected
 - Contents of Log Files
 - Cookie Types
- Contacts with Users (if applicable)
- Research on Accuracy of Basic Data
 - Cookie Participation Percentages
 - Latency Estimates
- Rate of Response (if applicable)

Editing or Data Adjustment Procedures

- Checking Records for Completeness
- Consistency Checks
- Accuracy Checks
- Rules for Handling Inconsistencies
- Circumstances for Discarding Data

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- Handling of Partial Data Records
 - Ascription Procedures

Computation of Reported Results

- Description of How Estimates are Calculated
 - Illustrations are desirable
- Weighting Techniques (if applicable)
- Verification or Quality Control Checks in Data Processing Operations
- Pre-Release Quality Controls
- Reprocessing or Error Correction Rules

Reporting Standards (if applicable)

- Requirements for Inclusion in Reports, Based on Minimum Activity Levels

Reliability of Results

- Sampling Error (if applicable)

Data retention rules

- Maintaining sufficient data or processes that allow for audit trail

Limitations on Data Use

- Non-sampling Error
- Errors or Unusual Conditions Noted in Reporting Period
- Limitations of Measurements

8.0 Auditing Guidelines

8.1 General

Third-party independent auditing is encouraged for all ad-serving applications used in the buying and selling process. This auditing is recommended to include both counting methods and processing/controls as follows:

1. Counting Methods: Independent verification of activity for a defined period. Counting method procedures generally include a basic process review and risk analysis to understand the measurement methods, analytical review, transaction authentication, validation of filtration procedures and measurement recalculations. Activity audits can be executed at the campaign level, verifying the activity associated with a specific ad creative being delivered for performance measurement purposes.
2. Processes/Controls: Examination of the internal controls surrounding the ad delivery, recording and measurement process. Process auditing includes examination of the adequacy of site or ad-server applied filtration techniques. Although audit reports can be issued as infrequently as once per year, some audit testing should extend to more than one period during the year to assure internal controls are maintained.

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Audit reports should clearly state the periods covered by the underlying audit testing and the period covered by the resulting certification.

8.2 U.S. Certification Recommendation

All ad-serving applications used in the buying and selling process are recommended to be certified as compliant with these guidelines at minimum annually. This recommendation is strongly supported by the 4A's and other members of the buying community, for consideration of measurements as "currency."

Special Auditing Guidance for Outsourced Ad-Serving Software

Ad serving organizations that market ad serving/delivery software to publishers for use on the publisher's IT infrastructure (i.e., "outsourced") should consider the following additional guidance:

1. The standardized ad-serving software should be certified on a one-time basis at the ad serving organization, and this certification is applied to each customer. This centralized certification is required at minimum annually.
2. Each customer's infrastructure (and any modifications that customer has made to the ad serving software, if any) should be individually audited to assure continued functioning of the software and the presence of appropriate internal controls. Processes performed in the centralized certification applicable to the outsourced software are generally not re-performed. The assessment of customer internal controls (and modifications made to outsourced software, if any) is also recommended to be at minimum an annual procedure. These certification procedures are only necessary for outsource clients who wish to present their measurements for use by buyers.

Special Auditing Guidance for Advertising Agencies or Other Buying Organizations

If buying organizations modify or otherwise manipulate measurements from certified publishers or ad-servers after receipt, auditing of these activities should be considered.

There are, in addition to MRC and its congressional supported certification process for the broadcast industry, a number of other certifiers and types and levels of certification are available to ad serving organizations.

9.0 Who We Are

About the Mobile Marketing Association

The MMA is the world's leading global non-profit trade association comprised of more than 800 member companies, from nearly fifty countries around the world. Our members hail from every faction of the mobile marketing ecosystem including brand marketers, agencies, mobile technology platforms, media companies, operators and others. The MMA's mission is to accelerate the transformation and innovation of marketing through mobile, driving business growth with closer and stronger consumer engagement. Anchoring the MMA's mission

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are four core pillars: Cultivating Inspiration, Building Capabilities for Success, Demonstrating Measurement and Impact, and Advocacy. The MMA's global headquarters are located in New York and it has regional operations in Europe/Middle East/Africa (EMEA), Latin American (LATAM) and Asia Pacific (APAC), with local councils in 17 countries. For more information, please visit www.mmaglobal.com.

About the IAB (U.S.)

The Interactive Advertising Bureau (IAB) empowers the media and marketing industries to thrive in the digital economy. It is comprised of more than 650 leading media and technology companies that are responsible for selling, delivering, and optimizing digital advertising or marketing campaigns. Together, they account for 86 percent of online advertising in the United States. Working with its member companies, IAB develops technical standards and best practices and fields critical research on interactive advertising, while also educating brands, agencies, and the wider business community on the importance of digital marketing. The organization is committed to professional development and elevating the knowledge, skills, expertise, and diversity of the workforce across the industry. Through the work of its public policy office in Washington, D.C., IAB advocates for its members and promotes the value of the interactive advertising industry to legislators and policymakers. Founded in 1996, IAB is headquartered in New York City and has a West Coast office in San Francisco. For more information, please visit www.iab.net.

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.

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The initial release of these guidelines was collaboratively developed by a working group that included the following companies:

Amobee	GSM	Orange NSM
Cars.com	Handmark	PwC
Crisp Wireless	Impact Mobile	Quattro Wireless
Deloitte & Touche	ImServices Group Ltd.	Ringleader Digital
Dynamic Logic	KPMG	Safecount
Ernst & Young LLP	Microsoft	Turkcell
Eyeblaster	Millennial Media, Inc.	Vodafone
Google	Mobisix	Weather Channel Interactive
GroundTruth	O2, Telefonica S.A	Yahoo!

10.0 References

The following links provide additional sources of information and reference:

- IAB Mobile Marketing Center of Excellence (<http://www.iab.com/mobile>)
- Mobile Marketing Association Website (<http://www.mmaglobal.com>)

11.0 Contact Us

For more information, please contact:

IAB (US)

Email: mobile@iab.com www.iab.com

Mobile Marketing Association

Email: mma@mmaglobal.com www.mmaglobal.com

Media Rating Council

Email: staff@mediaratingcouncil.org www.mediaringcouncil.org

12.0 Glossary of Terms

The MMA maintains a nomenclature glossary of all terms within MMA guidelines, education documents and research. The glossary is available at: <http://www.mmaglobal.com/glossary.pdf>

Appendix A

Sample Description of Methodology

This Description of Methodology (DOM) is a summary of the impression measurement processes employed, including a general description of our measurement methodology, filtration processes and reporting procedures.

What's Included:

Provide a description of the company's systems, software, technology platform, sites, pages, ad types, ad placements, etc. that are included within the scope of the audit process, and therefore within this DOM. This should also include any trade names used if measurement systems, measurement methodology, etc. are known by any branded name, as well as any standard names or titles utilized to brand reports used by the company to publish the results to advertisers or other clients/subscribers. Lastly, the company should describe which types of impressions and measurements are included within the scope of the audit process, and therefore as the subject of this DOM (banner, video, rich-media, etc.).

What's Not Included:

Provide a description of the company's systems, software, technology platform, sites, pages, ad types, ad placements, trade names, report titles and metrics that are NOT included within the scope of the audit process, and therefore within this DOM. Additionally, for third-party ad servers, publishers using an ASP provider, etc., describe components that are outside the control of the company's system, software or technology. For example, for a publisher using ASP, filtration procedures performed by the ASP are outside the publisher's control.

Measurement Methodology

If sampling is used in any manner, such sampling procedures should be fully disclosed, including limitations associated with using a sample-based approach. Otherwise, a statement should be included indicating that the measurement methodology is based on all impression activity recorded (subject to filtration procedures).

A description of the type of metrics reported by the company in the standard reports, denoting those that are the subject of the audit and certification process should be included.

For each audit, certified or accredited metric, the DOM should describe the following:

- Whether a Server-initiated or a Client-initiated technique is used to deliver ad content to users.
- The specific Client-initiated implementation technique, if client initiated counting occurs. NOTE: If more than one implementation technique is used, each should be described.

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- The response by the ad counter that results in impression measurement. NOTE: If more than one methodology is used as the measurement trigger, based on ad type or other factors, each measurement trigger should be described.
- Limitations associated with the specific measurement trigger being utilized (e.g., latency can result in a 302 being issued and the impression will be counted, although a user may abandon the transaction before arriving at the landing page).
- Compound tracking, if used, should be described in sufficient detail as to provide a high-level understanding of the mechanism(s) in place to provide reasonable assurance that all grouped ads load prior to counting.
- Cache-busting techniques, including the use of random number or other unique strings and/or server header controls.

A brief description of the logging method, logging frequency, types of data collected, and contents of the log files and frequency of retrieval and processing should be provided.

A brief description of other information utilized in the measurement methodology, if any, should also be provided.

A brief description of general measurement limitations arising from the company's implementation, or technological limitation not specific to the company should be disclosed.

Filtration Methodology

A general statement indicating that processes exist to attempt to identify and exclude invalid activity, such as the following, should be included:

The company employs techniques based on identifiers, activity and patterns based on data in the log files in an attempt to identify and filter (exclude) invalid activity, including but not limited to known and suspected non-human activity and suspected invalid human activity. However, because user identification and intent cannot always be known or discerned by the publisher, advertiser or their respective agents, it is unlikely that all invalid activity can be identified and excluded from the reports results.

Further detail related to filtration should be provided as follows:

- If filtration procedures are performed by a third-party on behalf of the company (such as part of a third-party activity audit), this should be disclosed.
- The use of robot instruction files (e.g., in the root directory of the measurement server).
- The source used for specific identification of non-human activity.

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- A description of and the frequency of procedures employed should be disclosed.
- Activity based filtration processes are employed, but details of these processes will not be disclosed except to auditors as part of the audit process.
- Processes to remove self-announced pre-fetch activity.
- Processes to remove internally generated testing (non-commercial) activity whether generated used manual or automated techniques.

Treatment of internally generated traffic should be disclosed. If internally generated traffic is not excluded from the measures, an estimation of the volume of internal traffic should be provided with a description of how that estimate was derived.

The use location and impact of site-initiated auto-refreshed impressions should be disclosed (this would include impressions refreshed independent of a refreshed page load as well as impressions that are refreshed as a component of a refreshed page). Additionally, an estimation of the volume of auto-refreshed impressions should be provided with a description of how that estimate was derived. This estimate should be relevant to the use of auto-refresh – that is, if a certain placement type appears only on a refreshed page, separate quantification of the impact to that placement may be required if materially different than the overall impact of auto-refresh.

If any of the above described filtration procedures are applied to some subset of activity (and not to all activity), the situation should be fully disclosed.

Any additional processes that filter, edit or discard initially recorded activity should be disclosed. This would include rules for handling inconsistencies, circumstances for discarding data, treatment of incomplete or corrupted log data, handling data retrieved too late for inclusion in the initial processing, etc.

Data Reporting

Description of the data reported to advertisers, clients and/or subscribers, including the use of any estimation procedures.

Reporting parameters such as definitions of day, week, month, day parts, time zone or which time measures are based, etc. must be disclosed. Additionally, if the company designates reported data as “Preliminary” for a defined period and as “Final” after that defined period of time from the time activity was initially generated (e.g., data are considered preliminary for five business days, after which they are considered final data unless otherwise noted), those parameters should also be disclosed.

Description of pre-release quality assurance procedures (verification or other quality control processes to ensure the accuracy of reported data).

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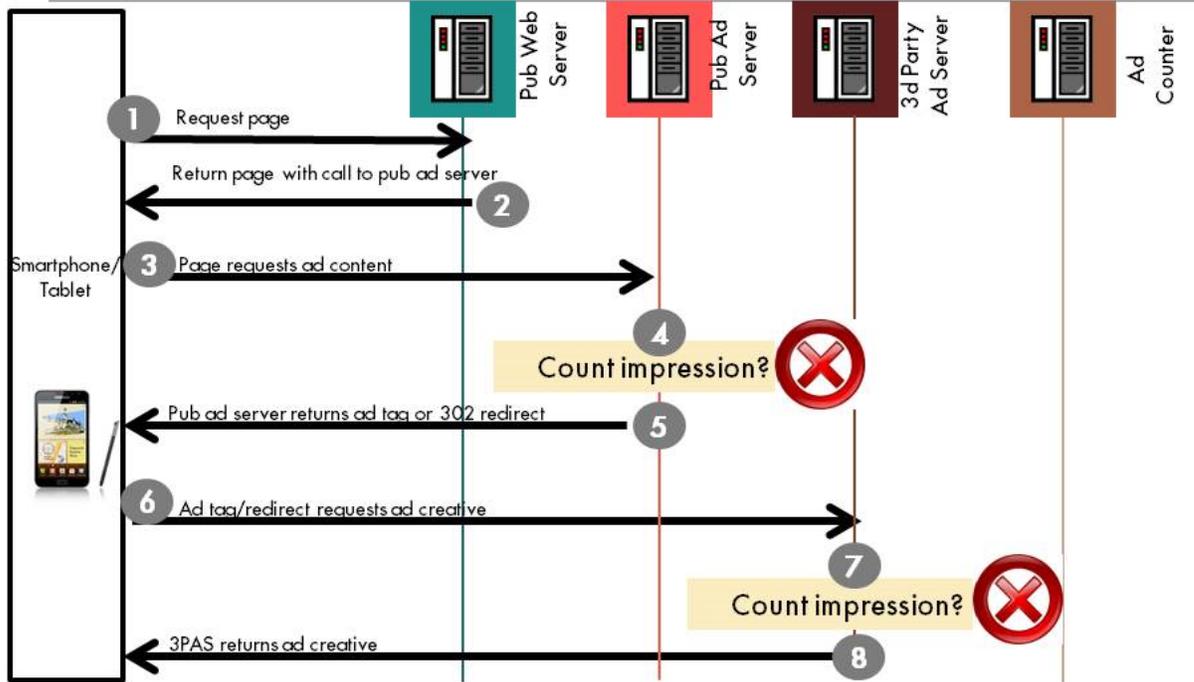
Description of situations, parameters and relevant thresholds in which data will be reissued. For example:
“Revised impression metrics will be reported when significant excluded or invalid activity is detected for a campaign after initial reporting but within [state period – must be commercially reasonable] time period.”

Disclosure of the retention period for electronic records.

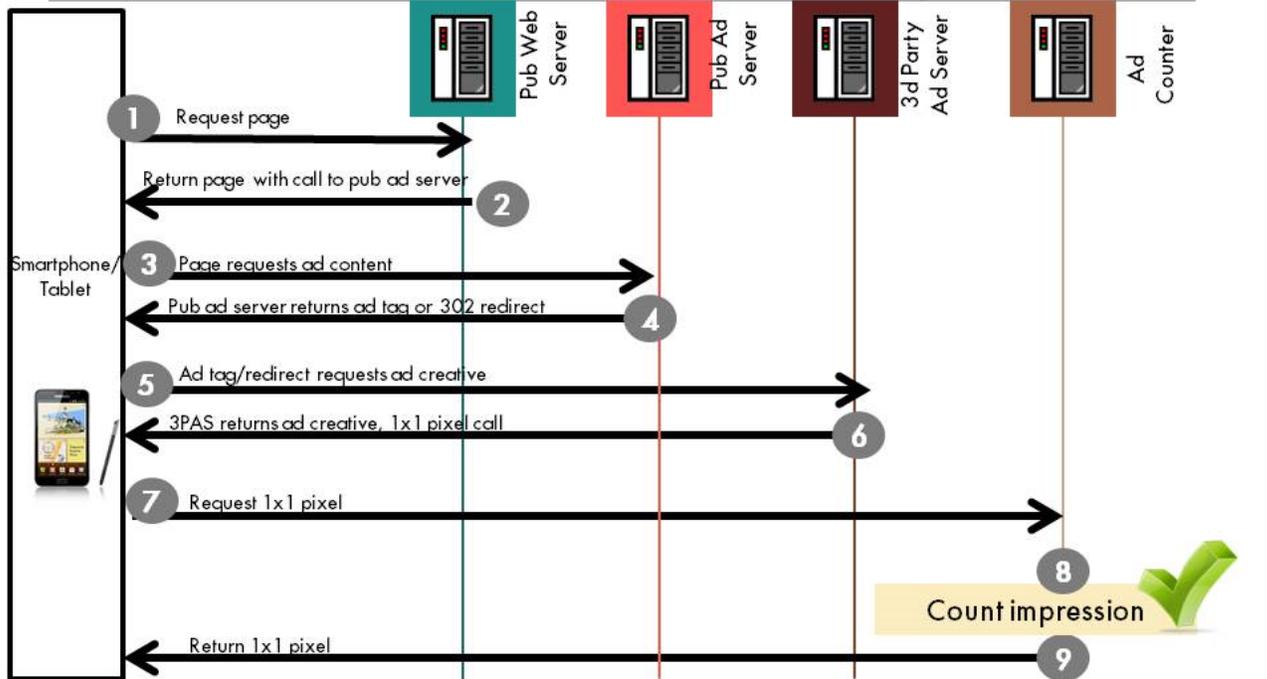
Appendix B

Examples of Server-Side and Client-Side Counting

Server-Side Counting: NOT ALLOWED



Client-Side Counting Example: 1x1 Pixel Tracking



Client-Side Counting Example: JavaScript Rich Media Banner

