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Mobile Advertising
Glossary of Terms

IAB Mobile Advertising Council
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Contents

Introduction

In a fast-moving and ever-changing industry like mobile advertising, it is essential for everyone who works in it to understand the components and key developments as they evolve. With a well developed habit for shortening complex technologies to 3-letter acronyms, it is understandable that this industry can often appear bewildering!

The IAB, as part of its mission to "Simplify & Inspire", is here to help. The Mobile Advertising Council is proud to unveil our contribution to clarity in this "Mobile Glossary". We hope this helps you to navigate the mobile advertising specific forest of acronyms and other technical terms in your day-to-day, as you research, plan, execute and analyse the mobile advertising industry. It is intended to be used by just about anyone who touches mobile advertising in some way, but we especially hope it is of benefit for those new to the industry, so they can feel confident in this industry, and the exciting technologies & opportunities within.

Let's get simplified and inspired!

Richard Knott

Regional Director, APAC, Celtra, Inc.
Co-Chair, IAB Mobile Advertising Council

Since the early days of the first banners ads, digital has seen propulsive growth, and today around 19 million Australians go online daily and digital formats make up around half of the entire advertising revenue in the country. And naturally, along with the growth in market share, there has been parallel growth in the complexity of digital advertising. For many people it can often feel like a different language – even the experts can get confused in a field that is this fast changing.

Hence, the IAB mission to "Simplify and Inspire".

We believe it's essential – for all involved, from the digital novice to the immersed expert – to create common language across the different platforms. This industry wide language is a key step in the mission to simplify, so we have tasked our industry Councils and Working Groups with crafting a series of glossaries to that end.

We need every marketer, agency, tech company and publisher in digital to all speak the same language. That makes it easier to focus on the real objective – creating brilliant digital experiences for the consumer to deliver the best and most measurable marketing outcomes.

Simplify. Inspire.

Vijay Solanki

CEO
IAB Australia

Information

This document has been originally developed by the Interactive Advertising Bureau Australia Mobile Advertising Council in August 2017.

ABOUT THE IAB MOBILE ADVERTISING COUNCIL

The IAB Australia Mobile Advertising Council comprises the following 22 members from IAB member companies:

Apps

App Download
The act of downloading an application to a mobile or tablet device from a relevant app store without necessarily launching or opening the app.

App Install
An install is registered by third party tracking solutions at the time an app is first launched (or opened) by a hardware device.

App Store Optimisation (ASO)
A process which helps increase your app store visibility with a focus on optimising your app content (keywords, description, icon etc.).

Application
An application on a mobile device.

Client User
A mobile device that interacts with an application, essentially executing or otherwise reviewing the application. The number of Users (people) or the demographic characteristics of the Users interacting with the application through the Client User is not necessarily known.

Cost Per Install (CPI)
Pricing structure an advertiser pays a publisher for each installation linked to the ad, of a mobile app. CPI = Cost/Number of Installs.

Cross-Application Data
Cross-App Data is data collected from a particular device regarding application use over time and across non- Affiliate applications. Cross-App Data does not include Precise Location Data or Personal Directory Data. Cross-App Data includes unique values assigned or attributed to a device or a unique combination of characteristics associated with a device where combined with Cross-App Data. Cross-App Data does not include data that is not associated with a specific individual or device, such as data that has been De-Identified. (DAA, 2013)

Daily Active Users (DAU)
The number of users who interact with your app daily.

Deep Link
Deep linking consists of using a uniform resource identifier (URI) that links to a specific location within a mobile app rather than simply launching the app.

Deferred Deep Linking
Extends basic deep linking with the ability to send new users (those who haven't installed the app yet) to a specific screen within a mobile app. This is done by persisting the deep link until after the user has installed the mobile app and is launched on first app open.

Device ID
A device ID (device identification) is a distinctive number associated with a smartphone or similar handheld device. Device IDs are separate from hardware serial numbers. Types of device IDs:
• Android ID
• Identifier for Advertising of IDFA or IFA (iOS)
• Universal Device ID or UDID (iOS)
• MAC Address: Media Access Control address

Dynamic In-Application Ads
Ads that can be dynamically changed; allowing the functionality of providing different ads across application Sessions to the same or different Users.

Events
App events are the actions people take while using your app. Tracking app events allows you to understand who is using your app, measure the performance and reach specific sets of people who use your mobile app.

First Party
A First Party is the entity that is the owner of an application, or has Control over the application, with which the consumer interacts, and its Affiliates.

Identifier for Advertising (IDFA)
The IDFA is an Apple Device ID released with iOS 6 and is a cross application / publisher identifier. Unlike its predecessor, the IDFA is not permanently tied to a mobile device, as users can reset their IDFA at any time for added security or opt out of ad tracking altogether with a setting aptly named, "Limit Ad Tracking." As a result, the IDFA can no longer be easily linked to specific devices/users.

Latency
The length of time between, a user taking an action and the response of the application to perform the task. This is generally used to refer to the length of time between a page loading and the ads appearing on that page.

Mean Time to Install (MTTI)
Mean Time to Install is the average time it takes a user to install and launch the app after the initial tap on the advertisement. This metric is used for example, to detect fraud (short mean time to install may indicate fraud).

Mobile Rich Media Ad Interface Definitions (MRAID)
Term to define a common API (Application Programming Interface) for mobile rich media ads that will run in mobile apps.

Monthly Active Users (MAU)
The number of users who interact with your app monthly.

Apps

Organic Installs
Users who install an app as a result of organically driven browsing or from searching the app store.

Post-Install Event (PIE)
A Post-Install Event is any action taken by the user after the user has installed the app.

Pre-Fetch Ads
Ads that are pre-loaded into an application for the purpose of storage or speeding delivery. These ads should not be counted until executed and received by the Client User.

Push Notifications
This is a message that pops up on a mobile device. App publishers and advertisers (via apps) can send them at any time and users don't have to be in the app or using their devices to receive them.

Software Development Kit (SDK)
A software development kit (SDK or devkit) is typically a set of software development tools that allows the creation of applications for a certain software package, software framework, hardware platform, computer system, video game console, operating system, or similar development platform. To enrich applications with advanced functionalities, advertisements, push notifications and more, most app developers implement specific software development kits. Some SDKs are critical for developing a platform-specific app.

Unique Device ID Number (UDID)
Apple's original unique device ID number which consisted of a 40-digit sequence of letters and numbers. These numbers were deprecated around August 2012 due to privacy concerns around the ability to tie UDID information to a consumer's Personally Identifiable Information (PII). On May 1, 2013 Apple started to reject any application that leveraged this unique device identifier.

General Mobile

1G
1G refers to the first generation of wireless telephone technology (mobile telecommunications). These are the analogue telecommunications standards that were introduced in the 1980s and continued until being replaced by 2G digital telecommunications.

2G
2G (or 2-G) is short for second-generation wireless telephone technology. Second-generation 2G cellular telecom networks were commercially launched on the GSM standard in Finland by Radiolinja (now part of Elisa Oyj) in 1991. Three primary benefits of 2G networks over their predecessors were that phone conversations were digitally encrypted; 2G systems were significantly more efficient on the spectrum allowing for far greater mobile phone penetration levels; and 2G introduced data services for mobile, starting with SMS text messages.

3G
3G, stands for third generation, is the third generation of wireless mobile telecommunications technology. This is based on a set of standards used for mobile devices and mobile telecommunications use services and networks that comply with the International Mobile Telecommunications-2000 (IMT-2000) specifications by the International Telecommunication Union. 3G finds application in wireless voice telephony, mobile Internet access, fixed wireless Internet access, video calls and mobile TV. 3G telecommunication networks support services that provide an information transfer rate of at least 2 Mbit/s. Later 3G releases, often denoted 3.5G and 3.75G, also provide mobile broadband access of several Mbit/s to smartphones and mobile modems in laptop computers.

4G
4G is the fourth generation of mobile telecommunications technology, succeeding 3G. A 4G system must provide capabilities defined by ITU in IMT Advanced. Potential and current applications include amended mobile web access, IP telephony, gaming services, high-definition mobile TV, video conferencing, and 3D television.

5G
5th generation mobile networks or 5th generation wireless systems, abbreviated 5G, are the proposed next telecommunications standards beyond the current 4G/IMT-Advanced standards. 5G planning aims at higher capacity than current 4G, allowing a higher density of mobile broadband users, and supporting device-to-device, ultra reliable, and massive machine communications. 5G research and development also aims at lower latency than 4G equipment and lower battery consumption, for better implementation of the Internet of things.

Ad Blocker
A piece of software that scans web content before it is displayed on a web page. The software then works to block, suppress, or otherwise hide the ads based on pre-determined criteria.

Ad Placement Identifier (APID)
An Application Placement Identifier (APID) is a unique identifier which is assigned to each ad placement within an application or mobile website. Each ad request sent should contain a placement level APID which is used to identify the application or mobile site making the request.

Application Programming Interface (API)
An Application Programming Interface (API) is a set of subroutine definitions, protocols, and tools for building application software. In general terms, it is a set of clearly defined methods of communication between various software components.

Beacon
Beacons are hardware transmitters - a class of Bluetooth low energy (LE) devices that broadcast their identifier to nearby portable electronic devices. The technology enables smartphones, tablets and other devices to perform actions when in close proximity to a beacon.

Behavioural Targeting
Behavioural targeting comprises a range of technologies and techniques used by online website publishers and advertisers aimed at increasing the effectiveness of advertising using user web-browsing and location behaviour information.

Bluetooth (BT)
Bluetooth is a wireless technology standard for exchanging data over short distances (using short-wavelength UHF radio waves in the ISM band from 2.4 to 2.485 GHz) from fixed and mobile devices, and building personal area networks (PANs). Bluetooth is a delivery protocol that is extremely flexible and can deliver a wide variety of content ranging from trailers for studios and networks, simple text message and links to scan-able coupons. Another benefit is that it is free to the consumer.

Carrier IP
Identifies a device by a numerical identifier (assigned by the carrier) that allows it to receive information across networks. Because it is integral to the device itself, it is one of the more consistent (though not most precise) forms of targeting.

Click Through Rate (CTR)
A performance measure based on the percentage of ads clicked on divided by the total number of impressions served (Ad Clicks/Ads Served).

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Click to Call Rate (CTC)
Cost/performance calculation based on the number of newly acquired users. For example, the goal of the campaign could be to collect email addresses, so the CPA is based on the number of email addresses submitted as a result of the ad – also called PPA (Pay per Action) or CPC (Cost per Conversion).

Conversion Rate (CR)
The ratio of whatever you define as a conversion against the measure of the efforts used to drive it, such as impressions or clicks.

Cost Per Action (Acquisition) (CPA)
A pricing model, where the advertiser pays for a specified action. The actions, after initial impression and click include an install, form submit, double opt-in or in-app sale. CPA = Cost/Number of Actions.

Cost per Click (CPC)
Cost/performance calculation based on the number of ads actually clicked ($X per click, or CPC = CPM / (1000 × CTR).

Cost Per Engagement (CPE)
A cost per engagement is a buy model that only charges advertisers when a user engages with their ad unit. Engagements may be qualified a variety of ways and can include things like playing a video and being within the expanded state of an ad unit for a qualified, minimum amount of time.

Cost per Lead (CPL)
Cost calculation based on the number of leads generated through a campaign. E.g., the goal of the campaign could be to collect email addresses, so the CPL is based on the number of email addresses collected as a result of the ad ($X per lead, or Total program cost / # of Total leads).

Cost per Sale (CPS)
Cost/performance calculation based on the number of resulting POS transactions. E.g., the goal of the campaign could be to redeem a digital coupon, the cost to ring the cash register is the cost of the campaign, plus the coupon value, divided by the number of users that walk into a store (or e/mCommerce site) and redeem a coupon, as a result of the ad served.

Cost per Thousand (CPM)
Cost calculation based on the number of impressions served. ($X per 1,000 impressions).

Data Fusion
Combining data from two or more different sources where the data merges and becomes blended into a new data source.

Data Normalization (also Calibration)
Where there are two or more disparate data points within a data set, combining them in such as way that maintains data integrity and accuracy while improving usability.

De-Identification Process
Data has been De-Identified when an entity has taken reasonable steps to ensure that the data cannot reasonably be re-associated or connected to an individual or be connected to or associated with a particular computer or device.

Deterministic Attribution
Deterministic attribution uses personally identifiable first-party data to recognise unique users across multiple devices, such as a user name ID or email ID. A deterministic identifier is a guarantee that the user is unique. The data is known to services users have signed up to, and made available to advertisers via anonymous IDs specific to those services. Only available when made available by the inventory source.

Device Fingerprinting
A device, machine, or browser fingerprint is information collected about a remote computing device for the purpose of identification. Fingerprints can fully or partially identify individual users or devices even when cookies are turned off.

Duplication/De-Duplication
The instances where a Unique (Cookie, Browser, Device, Household, Respondent, User or Visitor) is exposed to the same content or advertisement more than once within the same dataset or measurement period. De-Duplication is the data editing technique used to remove Duplication from reported processed data or reported results.

Dynamic Targeting
Mobile ad targeting that is based on some form of real-time data / behaviours. As a result, the targeting area does not remain static, but instead is in constant motion.

Event Based Ads
Ads that are generated as a result of an event in the application, typically triggered by a User's interaction with the application through the Client User.

Frequency
The number of times an ad is delivered to the same browser/app (or user) in a single session or time period. The average number of times the unduplicated homes reached are exposed to a schedule of content whether an ad, a program, a video or a schedule of spots.

Frequency Capping
A practice that limits the number of times an advertising message exposure (ad impression) can be billed to buyers within a campaign and/or over a specified period of time. Frequency capping may also refer to limits placed on the number of times that an ad is to be delivered to a particular user over a period of time.

HTML5
HTML5 is the latest standard for browsers to display and interact with web pages. It is designed to provide better, faster, more consistent user experiences for desktop and mobile visitors.

Inactivity
In digital media refers to specific inactivity rules, by which a user visit is terminated and thus excluded from additional contributions to Time Spent after a pre-determined level of consecutive minutes of inactivity.

Interstitial
Interstitial ads are full-screen ads that cover the interface of an app or web browser.

K Factor
Measurement of an app's virality. The K-Factor is determined by comparing the number of invitations send out by a user to the average rate of converting those invitation to new users. The K factor equation is $k = i * c$, where i is the number of invitations sent out by users and c is the conversion rate of invitations to new users. Any K-Factor over one is considered exponential growth.

Media Access Control address (MAC)
A unique identifier assigned to devices for communications on the physical network segment. A MAC address usually encodes the manufacturer's registered identification number and may be referred to as the burned-in address.

Mobile Unique Identifier (MUID)
A unique combination of numbers or characters associated with a specific device. These identifiers come in various forms and under various names depending on the method of assigning the ID, the manufacturer of the device, and/or the operating system on the device (e.g., Apple uses UDID for its Unique Device Identifier).

Near Field Communications (NFC)
Near Field Communications is a technology for smartphones with chips that deliver a similar experience to the QR codes, i.e. no need to scan.

Panel Data
A selected cross section of opt-in consumers or viewers whose behaviour and usage is measured over a period of time as a group or set of sub groups with the intent to form opinions and trends about their behaviours.

Pay-per-Action (PPA)
Cost/performance calculation based on the number of times a user engages in the predeter-mined goal or action. For example, the goal of the campaign could be to engage with a store locator, so the PPA is based on the number of times a user utilizes the store locator as a result of the ad. Other actions include but are not limited to calls, video plays, etc. Also called CPA (Cost per Action) ($X per action, or $X per 1,000 actions).

Pay-per-Call (PPC)
Cost/performance calculation based on the number of calls received from a campaign/program ($X per call or Cost of program / Total # of calls).

Personally Identifiable Information (PII)
Data that can be used to identify a specific individual. This includes names, addresses, email addresses, phone numbers, among others (Source: CIMM Lexicon 3.0). Any information about an individual maintained by an agency, including any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records and any other information that is linked or linkable to an individual such as medical, educational, financial and employment information (Source: NIST, Guide to Protecting the Confidentiality of PII). Refers to information such as an individual's name, mailing address, phone number or e-mail address.

Pixel
A pixel is a 1x1 transparent GIF that can be used to track a visit or event on a webpage, ad impressions or another kind of action such as opening an email.

Probabilistic Attribution
Probabilistic identification combines a number of anonymous pieces of non-personally identifiable information to recognise a unique user across multiple devices. These data points (e.g.: device type, operating system, browsing data.) are fed into algorithms that output a percentage probability that a user matches an existing unique profile.

Probability Sample
A random selection method to create a sample that is designed to best replicate the greater census or Universe being measured. Each selection in the sample must have the same probability of being chosen within relative sampling strata for sample selection. (MRC, 2017)

Radio Frequency Identification (RFID)
The wireless non-contact use of radio-frequency electromagnetic fields to transfer data, for the purposes of automatically identifying and tracking tags attached to objects. The tags contain electronically stored information. RFID tags are used in many industries. An RFID tag attached to an automobile during production can be used to track its progress through the assembly line.

Received Signal Strength (RSS)
RSS can be used internally in a wireless network or Wi-Fi Positioning Systems (WPS) to determine the amount of radio energy being transmitted to an antenna / wireless receiving device. The devices received signal strength can then be used to determine the devices location as it moves around structure or building.

Recency
Refers to the time between collection of data and the passing or use of that data.

Registration Data
Data collected via a process for site visitors to enter information about themselves. Sites use registration data to enable or enhance targeting of content and ads. Registration can be required or voluntary.

Secondary Action Rate (SAR)
A performance measure based on the percentage of ads that resulted in a down stream "action" or desired behaviour, beyond the initial ad click, divided by the total number of impressions served.

Session
A single application-use event that spans an unspecified period of time of constant or ongoing application activity by a User through the Client User. Sessions are terminated by User actions indicating the closing of the application, or by inactivity levels that meet or exceed defined thresholds. Sessions are generally applicable to the calculation of reach metrics.

Short Message Service (SMS)
SMS stands for Short Message Service and is also commonly referred to as a "text message". With a SMS, you can send a message of up to 160 characters to another device.

Tag (TAG)
HTML code. Typically JavaScript or an IFRAME, that tells the browser to request content from an ad server.

Targeting
A technique used by online publishers and advertisers to increase the effectiveness of their campaigns based on behaviour or demographic characteristics including location [by focusing advertising impressions against a pre-determined sub-set of the universe or the "target"; targeting may be based on demographics, behaviour, or other measurable characteristics].

Third-Party Tracking
Tracking of application activity or other user interactions, as well as advertising exposure by a third party removed from the application developer or seller.

User reported location data
A user who registers for a service often gives an address and/or a post code. These can be used to place a location, but the chances that the user is at that location at any given moment tend to be low. (Note: When users sign up for emails or register for mobile apps and services, they often enter their addresses and post codes. This data can be translated into GPS coordinates to build a geo-location profile of a single user or user base. (BI-How Location))

Vertical Video
Vertical video is a video format where the video has been specifically created for viewing in portrait mode, as opposed to the traditional widescreen format normalised by cinema and television. Due to the nature of how we use smartphone devices, this format is continually growing in popularity as a preferred way to promote video content across mobile environments.

Viewable Impression
An Ad Impression that meets certain pixel and time thresholds (minimum 50% of the ad's pixels for 1 or 2 continuous seconds for display and video, respectively) in order to qualify as a Viewable Impression. These thresholds are designed to add greater assurance that there was an "opportunity to see" the ad by the user beyond assurance that the ad was properly served and rendered by the device.

Virtual Personal Assistant (VPA)
A VPA is an application that lets people ask questions and requests tasks to be completed by speaking to the application via their device. VPAs can answer questions, make phone calls, set alarms, make calendar appointments and more. Examples of VPAs include Apple's Siri and Amazon's Echo (Alexa).

Accuracy
The ability or degree to which a measurement can ascertain the actual location of a device or user and/or place and visitation correctly (the difference between measured and true location or place). Accuracy is an estimate of how likely the measured location represents the true location of the device/user/place/visitation and Precision is how specific and granular a measurement of location is stated (in terms of decimal points, etc.). Accuracy and precision are independent concepts, but both are necessary disclosures for location measurement.

Altitude
Z coordinates or elevation data that may be included with GPS latitude and longitude (X and Y) coordinates. Multiple places within the same latitude and longitude coordinates, but at varying levels of elevation (such as in multi-level buildings).

Areas of Activity (AOA)
Locations that users frequent on more than one occasion. By analysing AOA collectively, patterns of mobile behaviours and preferences emerge. The AOA's often help form geographic, demographic, and behavioural profiles.

Assisted Global Positioning System (A-GPS)
A-GPS enhances the performance of standard GPS in devices connected to the cellular network. A-GPS improves the location performance of cell phones (and other connected devices) in two ways:
1. By helping obtain a faster location coordinate by acquiring and storing information about the location of satellites via the cellular network so the information does not need to be downloaded via satellite.
2. By helping position a phone or mobile device when GPS signals are weak or not available. GPS satellite signals may be impeded by tall buildings, and do not penetrate building interiors well. A-GPS uses proximity to cellular towers to calculate position when GPS signals are not available.

Cell tower/triangulation
Identifies all the devices operating within its range. It's accurate at the market level where there are multiple towers in proximity to users (e.g., dense urban areas). Because carriers control cell data, marketers can't really target on this basis. The data typically refines GPS information from the device.

Census Tract
A census tract, census area, or census district is a geographic region defined for the purpose of taking a census. Usually these coincide with the limits of cities, towns or other administrative areas within a county.

City Centroids
Refers to the centre of the city or centre of the city mass often stated in Latitude and Longitude coordinates. Centroids are often used when inexact location data is present.

Cost per Navigation (CPN)
Cost/performance calculation based on the number of resulting map downloads or access to driving directions / navigations.

Cost per Visit (CPV)
Cost/performance calculation based on the number of times a user visits a store or site. The way a visit is captured and calculated varies across advertisers and vendors.

Dynamic Location
Location that is represented by a user or devices real-time location. As a result, the location the user or device is in does not remain static, but instead is in constant motion.

Geo-Aware
Refers to devices that can passively or actively determine their location.

Geo-Aware Ad Targeting
Geo-Aware advertising uses the context of a given location to serve relevant ads to mobile users. This type of targeting strategy relies on the layering of multiple data sources to the area --- to help drive out additional consumer context such as typical type of demo that frequents the area, types of businesses within the area, purchase behaviour etc. This technique typically relies on past location behaviours vs. more geo-precise targeting techniques that rely on a user's current or future location behaviours.

Geo-Conquesting
The capability of being able to target messages in and around competitive locations using geo-fencing technology. The ability to target messages to users who have previously visited a competitive location.

Geo-Fencing
A technology that allows an advertiser to select a geographic point using latitude and longitude information and then to create a virtual "fence" around that point of a given radius (e.g., an advertiser can pinpoint a bank branch, then deliver a specific ad to anyone who comes within a 200 meter radius). Ads delivered through geo-fencing typically yield higher conversions and better ROI for advertisers.

Geo-Location
The identification of the real-world geographic location of an object, such as radar, a mobile phone or an Internet-connected computer terminal. Geo-location may refer to the practice of assessing the location, or to the actual assessed location.

Global Positioning System (GPS)
A global system of U.S. navigational satellites developed to provide precise positional and velocity data and global time synchronization for air, sea, and land travel.

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Location

Historical Location
Based on activities or events that happened in the past in a distinct area.

Hotspot (aka Wi-Fi Hotspot)
A hotspot is a site that offers Internet access over a wireless local area network (WLAN) through the use of a router connected to a link to an Internet service provider. Hotspots typically use Wi-Fi technology. Hotspots may be found in coffee shops and various other public establishments in many developed urban areas throughout the world.

Hyper-local
Hyper-local connotes information oriented around a well-defined community with its primary focus directed toward the concerns of its residents. The term can be used as a noun in isolation or as a modifier of some other term (e.g. news). When used in isolation it refers to the emergent ecology of data (including textual content), aggregators, publication mechanism and user interactions and behaviours which centre on a resident of a location and the business of being a resident. More recently the term hyper-local has become synonymous with the combined use of mobile applications and GPS technology.

Indoor positioning systems (IPS)
Any system that attempts to provide an accurate position inside of a covered structure, such as an Airport, a Subway, or a Mall. It is generally implied that modern indoor positioning systems do not use GPS Satellites due to GPS's inability to penetrate structures or define a specific location point in an area more granular than 20 meters. An IPS relies on nearby anchors (nodes with a known position), which either actively locate tags or provide environmental context for devices to sense.

In-Store Visitation Rate (IVR)
A metric with vary formulas (and names), depending on the advertiser or vendor, but all built around a notion of measuring increased foot traffic as a result of a campaign.

IP address
Location can be approximated by using the IP address (e.g.10.226.29.91) assigned to the connection. This is often not an accurate method of tracking location. Location can be gauged by the IP address associated with the data connection. The accuracy of this approach varies between carriers, and is far less reliable than the above methods. (BI-How Location)

Lat/Long (Latitude/Longitude)
Lat/Long is an abbreviation of latitude and longitude. Latitude represents a point on the earth's surface parallel to the equator, and longitude represents a point on the earth's service between the two poles. Together, these two components specify the position of any location on the planet. These coordinates are measured in decimal degrees. A lat/long to 5 decimal degrees represents an accuracy of 1.1 meters, i.e. the exact location is within 1.1 meters of the represented point. In mobile, Lat/Long can be represented in many forms such as Precise, Point-in-time or Historical – which is dependent on the device or applications frequency at sending and receiving this information.

Location as a Service (LaaS)
A location data delivery model where privacy protected physical location data acquired through multiple sources including carriers, Wi-Fi, IP addresses and landlines is made available through a centralized point.

Location Based Advertising (LBA)
Location-based advertising (LBA) is a form of location-based marketing that integrates mobile advertising with Location Based Services. The technology is used to pinpoint consumer's location and provide location-specific advertisements on their mobile devices.

Location Based Mobile Marketing (LBM)
Location based marketing (LBM) refer to more than just location based advertising – as marketing can include things such as locally targeted content, messaging etc. and may or may not be advertising related.

Location Based Profiling
- Profiles based on the context of a given location based on past location data / behaviours (see geo-aware ad targeting)
- Profiles based on visitation patterns across multiple locations. Often used to determine distinct areas of target activity or AoA.

Location Based Services (LBS)
A location-based service, or LBS, is any information, entertainment, or social media service that is available on a mobile device, and makes use of geographical position. Position is determined by GPS, A-GPS, or Wi-Fi/cell tower triangulation.

Location Signal
Refers to the different ways location data can be accessed and passed via mobile. Types of location signals include: Outdoor (GPS, Wi-Fi, IP Address, Cell-tower triangulation, User-reporting location); Indoor (A-GPS, Indoor Positioning System (IPS), Wi-Fi triangulation.

Location-based Audiences (LBA)
Deriving an understanding of a user, based on analysing that specific user's location history. Analysis of geo-behavioural patterns can be used to infer demographics, behavioural attributes, and geographic attributes (i.e. where the user lives or works). 3rd party data (e.g. purchase data, TV viewership, car ownership etc.) can be joined to provide an understanding of home location.

Micro-Fencing
Similar to geo-fencing in that it allows an advertiser to select a geographic point using latitude and longitude information and to create a virtual "fence" around that point of a given radius. Unlike Geo-fencing, which primarily relies on GPS for positioning, Micro-fencing typically relies on Indoor Positioning Systems or IPS that allows fencing at a more granular level (less than 20 meters).

Point of Interest (POI) Targeting
Mobile targeting based around a particular location or locations, e.g., the Eiffel Tower, a gas station, and/or a sports stadium. The POI may or may not have a defined Postal Address.

Point-in-Time Location
Refers to a user or devices location that was collected at a specific point in time. Often times location based applications and/or sites ask for a user to share their location. Most applications do not continually collect this information to help preserve a device's battery life. As a result, user or device location data that may be accessible by one of these applications and/or sites may represent a user or devices location at the point in time when this data was last accessed/collected.

Polygons
A targeting technology that allows user or device targeting down to a specified area of a map. Instead of a defined point (such as a Lat/Long) or a circular radius around a defined point, the targeting area is represented in the shape of a polygon.

Precise Location
Data about the physical location of a device that is sufficiently precise to locate a specific individual or device. Examples of location signals that provide geo-precise information include In-store Positioning Systems (IPS), Global Positioning Systems (GPS) and Wi-Fi.

Predictive Location
The process of analysing activities or events that happened in the past in a distinct area to predict future user or device behaviours.

Proximity Marketing
Proximity marketing is the localized wireless distribution of advertising content associated with a particular location. Transmissions can be received by individuals in that location who wish to receive them and have the necessary equipment to do so.

Proximity Targeting
Delivering ads based on users' real-time location, typically defined as proximity to specific place(s). Place and proximity is typically defined as part of geo-fencing techniques discussed above and throughout this document.

Radius
A straight line from the centre of a point (can be represented in a Lat/Long or zip code or city Centroid) to the circumference of a circle or sphere. A radius is typically used in Geo-Fencing technology.

Speed
The rate at which a device or user is moving. Speed can be inferred indirectly from mobile accelerometer and gyroscopic measurements, but generally requires longitudinal analysis of location over time.

Static Location
Location that is represented in a fixed state. For instance, typical geo-fencing or zip code targeting in mobile is a form of static location as the fence or post code typically does not move – but stays as static targeting areas during the life of the campaign. (MMA, 2013)

Tiles
A targeting technique that allows user or device targeting down to a specified area of a map. Instead of a defined point (such as a Lat/Long) or a circular radius around a defined point, the targeting area is represented in the shape of a square or a tile.

Visit
Physical visitation or foot traffic results from the intersection of user-device location and place measurement. Generally, measurement of user/device location that falls within the boundary (via geo-fencing or other means) established with place measurement is used to derive visitation, however, consideration should be given to not only the data collection techniques and fields used to determine location, but also other validation and quality control considerations such as altitude for places with multiple floors as well as speed or longitudinal analysis of location to differentiate a visit from a "drive-by" or other types of momentary proximity not meeting the requirements of a visit. (MRC, 2017)

Wi-Fi triangulation
The Wi-Fi triangulation system determines a device's location by looking for nearby Wi-Fi systems, and examining the strength of their signal and all the spots in the area. Accuracy is generally to 20 meters and is based on the number of Wi-Fi spots that are documented in the database. This data can be collected in multiple ways, including by mobile phones and by automobile-based collection systems. The system can provide location-discovery capabilities indoors and in dense urban areas.

Zip centroid
Refers to the centre of a zip code or centre of the zip code mass. Centroids are often used when inexact location data is present.

Mobile Web

1st Party Cookie
A small amount of text stored in a user's browser that is created by the site the user is visiting. By default, first-party cookies are allowed in every browser.

3rd Party Cookie
A small amount of text stored in a user's browser that is created by a site with a domain name other than the one the user is currently visiting. 3rd party cookies are not always allowed by a browser and often, they may be blocked. These are predominantly used an ad server to identify and categorise a user into a targeting segment or classification.

Browser
A software application for retrieving, presenting, and traversing information resources on the World Wide Web. (MRC, 2017)

Caching
Memory used to temporarily store the most frequently requested content, files or pages in order to speed its delivery to the user. Caches can be local (i.e. on a browser) or on a network.

Cookie
A small piece of information (i.e., program code) that is stored on a browser for the purpose of identifying that browser during audience activity and between visits or sessions. Cookies are typically set to expire. Some cookies are intended to remain on the browser temporarily (for example, during a session) and some are persistent in that they are intended to be retained for longer periods. (MRC, 2017)

Multi-Site Data
Data collected from a particular computer or device regarding Web viewing over time and across non-Affiliate Web sites.

Time Spent/Dwell Time
The amount of elapsed time from the initiation of a visit to the last audience activity associated with that visit. (MRC, 2017)

Unique Browsers
An identified and unduplicated Cookie Browser that accesses Internet content or advertising during a measurement period. (MRC, 2017)

Unique Cookies
A count of unique identifiers (Cookies) that represents unduplicated instances of Internet activity to Internet content or advertising during a measurement period. (MRC, 2017)