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LOCATION-BASED MARKETING GLOSSARY

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INTRODUCTION

In December 2018, IAB Data Center of Excellence published Defining the Data Stack, a baseline guide on how "different types of data can enhance business performance for brands when used properly." This primer provides a comprehensive framework, definitions and recommendations across the data spectrum, particularly in light of the rise of the direct brand economy whose success in leveraging data to "unlock effective, ongoing, direct relationships" with their customers has shifted the retail business paradigm.

Following the publication of this Guide, IAB Mobile Marketing Center of Excellence's Local Committee formed a working group to look more closely at the language specific to location-based marketing: the terms and concepts that brands and marketers should know so they can effectively and intelligently consider and activate location-based campaigns.

While Defining the Data Stack is thorough, there are terms that are unique and distinct to location-based marketing which were not included. It was concluded, then, to create a separate, supplemental Location-based Marketing Glossary presented here...

What is Location-based Marketing?

Location-based marketing uses data about a consumer's geographic location in order to plan and execute highly relevant campaigns. By accessing location data, brands can deliver more targeted messages.

This data is captured only when a consumer specifically allows location data to be shared with a publisher or advertiser.

What is Location Data?

Anonymous, user-level data collected from a mobile device that provides anonymous information about its current position in space. It can be collected via SDK, via single app panel, via ad calls, or a combination of the above. Each data collection methodology has a different impact on the properties and quality of the data.

Location data is typically used to provide footfall attribution, audience segments for targeting and/or offline analytics based on the understanding of consumer offline patterns. It can be first, second or third party data.

DEFINING LOCATION DATA

DEFINING LOCATION DATA

General Terms

Altitude

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

AOI

Stands for **Area of Interest**, denoting the accurate boundary around a physical entity.

Lat/Long

Short for **latitude and longitude**, lat/long provides geographic coordinates for a particular location. Lat/long signals can be obtained from mobile devices and shared with those in the ad serving chain. One common way to obtain lat/long signals is from ad impression data. This method can provide signals for a large set of devices, but, depending on the scale of each vendor, may be limited to a smaller count of signals per unique device. The second approach is from the device itself.

Location vs. Place

Location is typically highly specific and defined by latitude and longitude, denoting a particular physical geography. Place describes a spatial boundary with associated metadata/attributes.

Location-based Audiences

Audience segments created on the basis of a user's spatial/offline behavior, that is, the places they visit in the physical world.

POI

Short for **Place of Interest** or **Point of Interest**. Advertisers may designate a location where their target audience congregates as a POI.

SOURCES OF DATA

SOURCES OF DATA

Where Do You Get Location Data?

Bluetooth

A wireless technology standard found in most mobile/handheld wireless devices that is designed for close-range networking and communications.

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 (e.g., during a session) and some are persistent in that they are intended to be retained for longer periods.

GPS

Short for **Global Positioning System**, GPS uses satellite signals to determine a device's particular physical location. When a user's mobile device requests new GPS lat/long coordinates, the device receives the signal from one of 24 satellites orbiting the Earth*.

IP Derived/IP Address

An IP address is the specific, unique internet protocol number given to every web-enabled object like a web server. IP-derived data is information gleaned from an IP address and associated internet behavior.

Location Graph

A way of plotting out a geographic location in a two-dimensional chart, typically on an X-Y plane.

* Source: https://www.faa.gov/about/office_org/headquarters_offices/ato/service_units/techops/navservices/gnss/faq/gps/

Location Hotspots

A pinpointed location, like a wireless internet router, that can also serve as a high-interest location for an advertiser.

SDK

Short for **Software Development Kit**. In the parlance of mobile ad tech, an advertising partner that integrates with an app via SDK will likely be able to collect more accurate location data than one connected through other means, like an Application Programming Interface (API). This is because, when a user grants permission to an app, SDKs are able to request location data points from the device's operating system more frequently, within reason. If an SDK requests location too frequently, that can cause higher than normal drain to batteries.

Trilateration

The practice of using data collected from disparate points to determine a central location. For example, cell phone data from different towers can be trilaterated to determine the device's more specific location.

Wi-Fi

A wireless technology standard typically used to connect mobile devices to the internet. Wi-Fi can be used to determine location by matching known Wi-Fi locations to the Wi-Fi router providing the signal; e.g., someone connecting to Wi-Fi known to be at a local coffee house location is likely at that coffee house.

SOURCES OF DATA

How Do You Get Location Data?

Background Data

Location data collected by an app or SDK while the app is not actively running.

Beacons

Small devices that use low-energy or Bluetooth (BLE) radio transmitter as a signal to communicate with wireless devices within their proximity. They can either send or receive information.

Bidstream

Location data that is received by listening to bids on open exchanges or supply-side platforms (SSPs).

Check-ins

An activity undertaken by someone to confirm that they are in a specific location.

Direct or SDK Data

Location data collected from apps or SDKs relying on the operating system which manages location services.

First-, Second-, Third-party Data

In today's public policy climate, how first-, second- and third-party data are defined and accounted for will likely be impacted by both state and federal legislation. For this reason, refer to IAB Data Center of Excellence's Defining the Data Stack for current definitions.

Foreground Data

Location data that is collected by an app or SDK only when the app is open and running.

Near-field Communications (NFC)

Generic term for communications protocols (like Bluetooth) that different devices may use to send data back and forth between each other.

Panel Data (Panel- and app-based survey data)

Opt-in mobile panels and other data from consumer-installed apps. They can be used to gain additional purchase-related behaviors.

Surveys are particularly adept at capturing consumer mood, affinity and spend behaviors, and provide marketers with a way to obtain direct feedback about interactions in the store. This approach also has the benefit of understanding when a consumer visited a store but did not complete a purchase.

Place Data

Information that highlights both the physical, geographic location and its particular characteristics.

Transaction Data

Information and data sets related to transactions, commerce-related or otherwise.

Truth Sets

A superset of transaction data that may include actual foot traffic or some other proxy for total sales or activity at a given place.

TARGETING METHODS

TARGETING METHODS

How Do You Use Data?

Geoconquesting

Marketing or advertising based on serving ads to audiences who have visited locations in the past or when consumers are within proximity to a competitor.

Geofencing

A method of assigning reported location from a mobile device to a specific place. Geofencing may involve either Point-Radius or Boundary methodologies.

In Point-Radius measurement, a midpoint and a circle of a specified radius established around the latitude and longitude of a place, with the data location points within that circle acting as a representation of the place itself.

In Boundary measurement, a complex polygon or boundary is established that is generally a more precise and granular representation of the confines of the place, with the data location points within the polygon acting as a representation of the place itself.

Geotargeting

Marketing or advertising based on or around an audience's real-time geographic location.

Historical Targeting

The delivery of ads to specific individuals based on data they generated in the past.

Predictive Targeting

The delivery of ads to specific individuals based on what it is believed they are likely to want or to be doing in the future.

This is a common application of artificial intelligence and machine learning. Based on data about what similar individuals have done in the past, predictive models are created that determine what a consumer is likely to do in the future.

Proximity Ad Targeting

The delivery of ads based on whether someone is in, near or close to a particular location. For example, the owner of a shopping mall may decide to push ads to everyone in or near the food court.

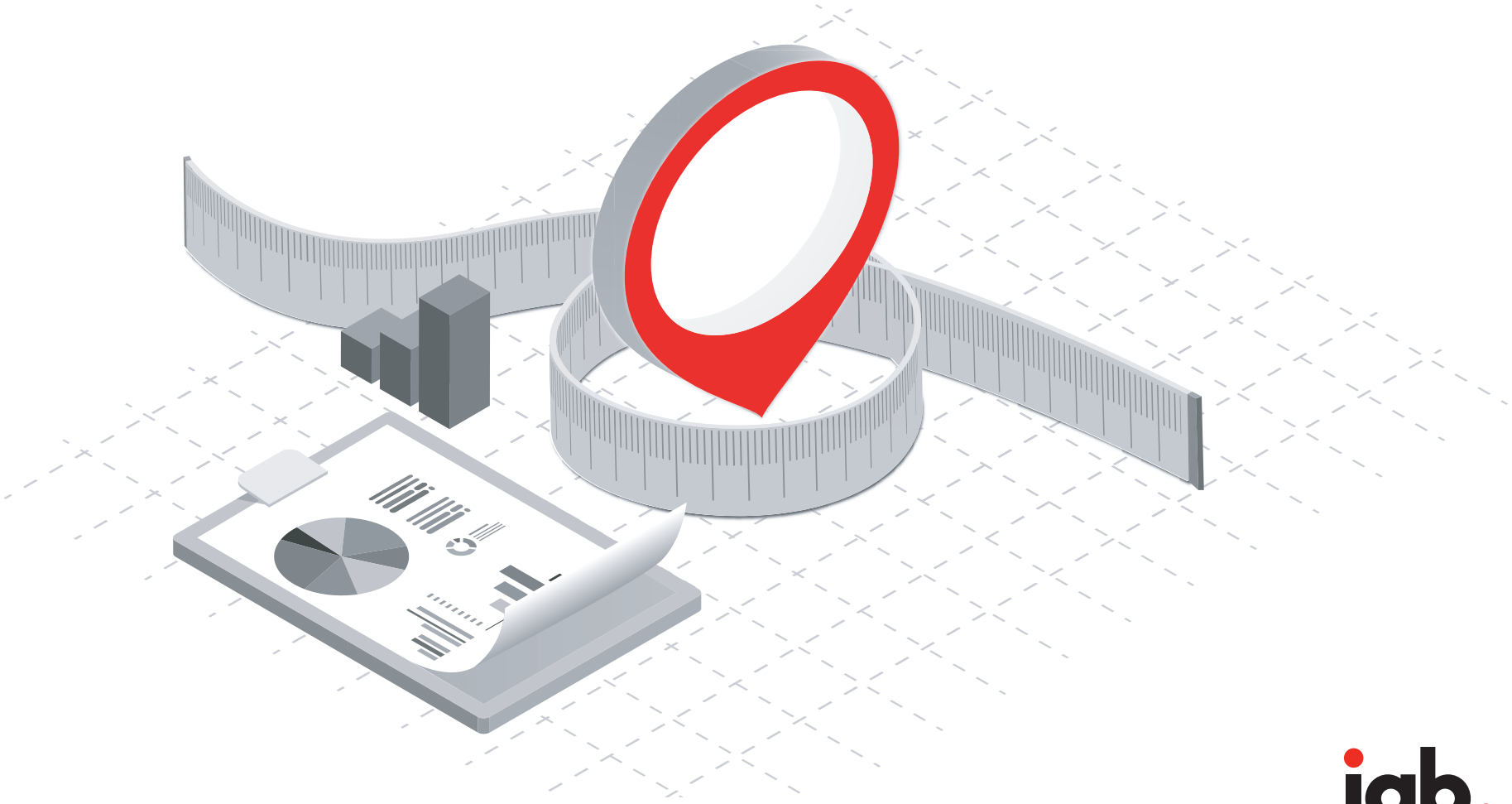
Real-time Targeting

In advertising, it's the process of delivering ads to someone based on in-the-moment, current signals coming in.

Retargeting

For the purposes of location-based marketing, retargeting refers to the delivery of ads based on a particular action a consumer has specifically undertaken at a physical location. For example, if a consumer visited a shoe store, s/he will then later be served ads featuring content of that retailer as they use different websites and apps.

MEASUREMENT METHODS



MEASUREMENT METHODS

How Do You Determine Whether Location Data is "Good?"

Data Cleansing

Activities to clean up a data set, so that erroneous, misleading, incorrect data is removed from view.

Density

Used to determine how many people are in a specific location or place at any given moment in time.

Location Anomalies

There may be times in which location data sets can yield erroneous or misleading data. For example, sometimes an IP address for a country does not match the lat/long's country value, or there are a large number of ad requests coming from regions of low user density.

Alternately, another type of anomaly would be when there are ad requests from a certain device closely spaced in time but from two different locations, like New York City and Kazakhstan.

Location Hygiene

The practice of sorting through location data sets to more clearly determine key signals, and to determine the accuracy/insights of the location and place data.

Generally, systems collect a variety of data from a variety of sources. In cases where there is no direct control over data collection or fraudulent behavior, the possibility exists of that data not being trustworthy. Hygiene filters are applied to filter out bad/unwanted location data.

Machine-based Measures

Data that specifically comes from hardware or software.

People-based Measures

Data that specifically comes from an individual or group of people.

Place Accuracy

The correctness or exactness of place-specific data sets.

Teleportation Effect (Velocity-based Hygiene)

A data hygiene filter that filters out the location data of users who are observed to be traveling at unexplainable speeds.

MEASUREMENT METHODS

How Do You Measure Location Data?

Behavioral Analysis

The use of raw data to bucket users into specific buckets of behavior.

Cross-Platform Attribution

Solutions that enable advertisers and their partners to increase visibility into the impact of their campaigns across different devices, and not just of browser-based digital placements. It is the ability to credit all activity from a campaign to the single campaign, regardless of the device on which that activity took place.

Dwell Time

Dwell time or time spent is generally the amount of elapsed time from the initiation of a visit to a particular location or place to the last audience activity associated with that visit. Dwell time can be reported on the basis of device sensor data, registration or panel participation, but in concept should represent the activity of a single user for a single access.

Foot Traffic Lift

Foot traffic lift studies correlate exposure to an advertising campaign to physical world "foot traffic" behavior; e.g., did the exposed device later visit the desired location(s).

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Footfall Report

The measurement of the number of people who physically were at a particular location over a set period of time along with information on where they went in that location and how long they spent there, among other noted variables.

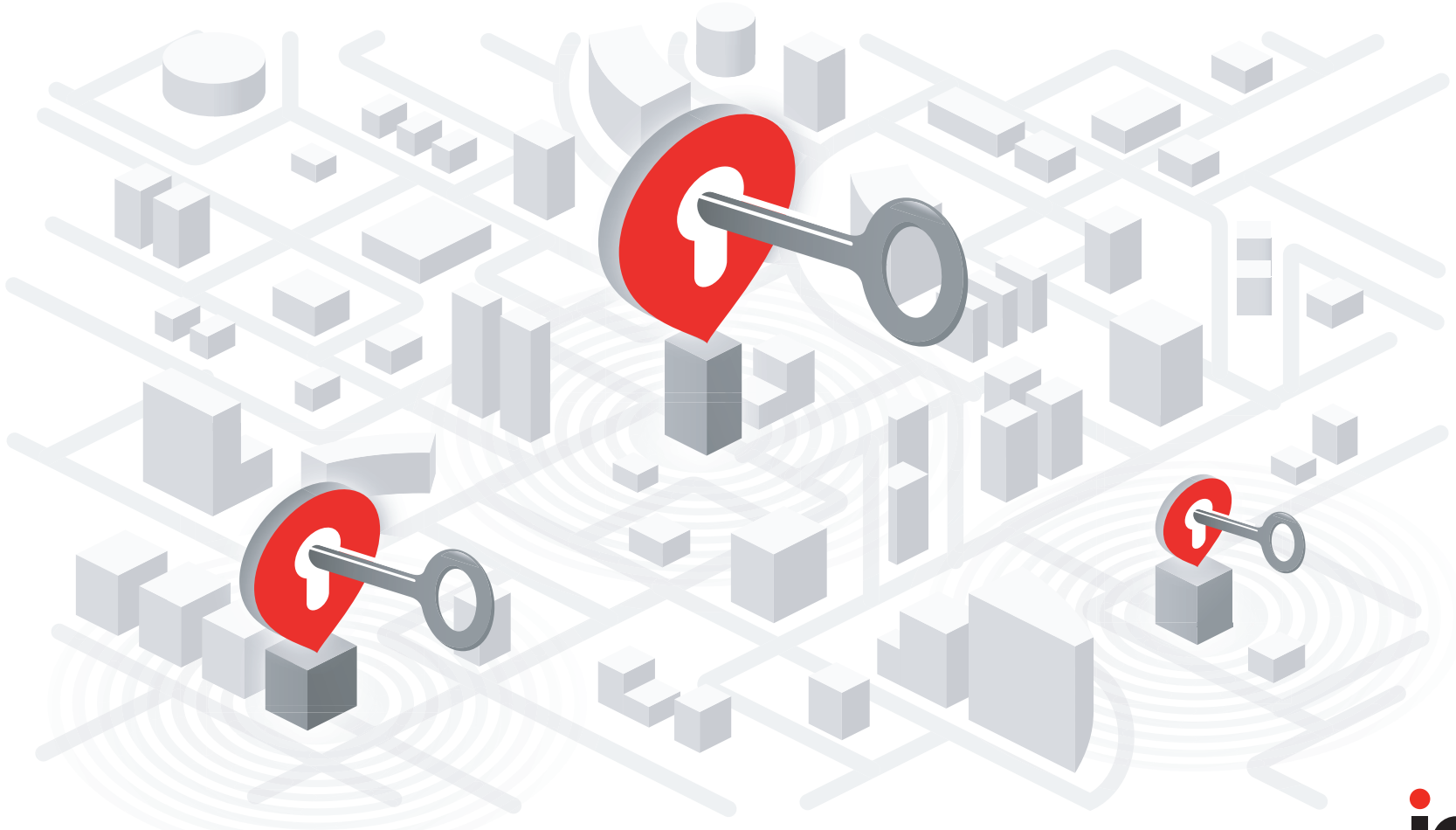
Offline Attribution

Measurement of non-digital marketing and advertising efforts, and their effects on sales, retention, etc.

Propensity

The likelihood that a certain action is about to take place.

SECURITY AND PRIVACY



SECURITY AND PRIVACY

How Do You Keep Consumers Safe?

California Consumer Protection Act (CCPA)

State-level law that aims to safeguard Californians' privacy by allowing consumers to opt out of the sale of their personal information.

Signed into law June 28, 2018, the California Consumer Protection Act of 2018, legally known as Assembly Bill No. 375, enshrines a "right to privacy" for residents of the State of California. The law grants consumers with very specific rights around disclosure of the types of data being collected and used, opting out of the sale of their data, deletion of their data upon request and prohibition against discrimination of consumers who exercise these rights.

California Online Privacy Protection Act (CalOPPA)

The California Online Privacy Protection Act of 2003, amended in 2014, is a state-level law that governs what data websites can collect on their California-based consumers and how they display their data usage and policy guidelines.

Children's Online Privacy Protection Act (COPPA)

The Children's Online Privacy Protection Act of 1998 is a U.S. federal law that prohibits the online collection of data from minors under the age of thirteen. It imposes requirements on how much information a website can be collected on and how much advertising can be delivered to those 13 years old and younger. It is enforced by the Federal Trade Commission (FTC).

Federal Trade Commission (FTC)

The Federal Trade Commission is a U.S. federal government agency charged with overseeing and enforcing consumer-centric laws such as COPPA, and ensuring fair and competitive business practices.

General Data Protection Regulation (GDPR)

European legislation that aims to ensure protection and privacy for all individuals within the European Union by imposing rules on controlling and processing personally identifiable information (PII).

GDPR, which came into effect in 2018, is notable primarily because it requires people to specifically and consciously opt in to any data collection and tracking initiative.

Online Privacy

The concept of whether behaviors and activity people undertake on the internet and with digital devices should be known about by third parties or not.

Personally Identifiable Information (PII)

Information included in any data set that allows users of the data to resolve the real-world identity of the data subject.

A Note About Privacy Compliance

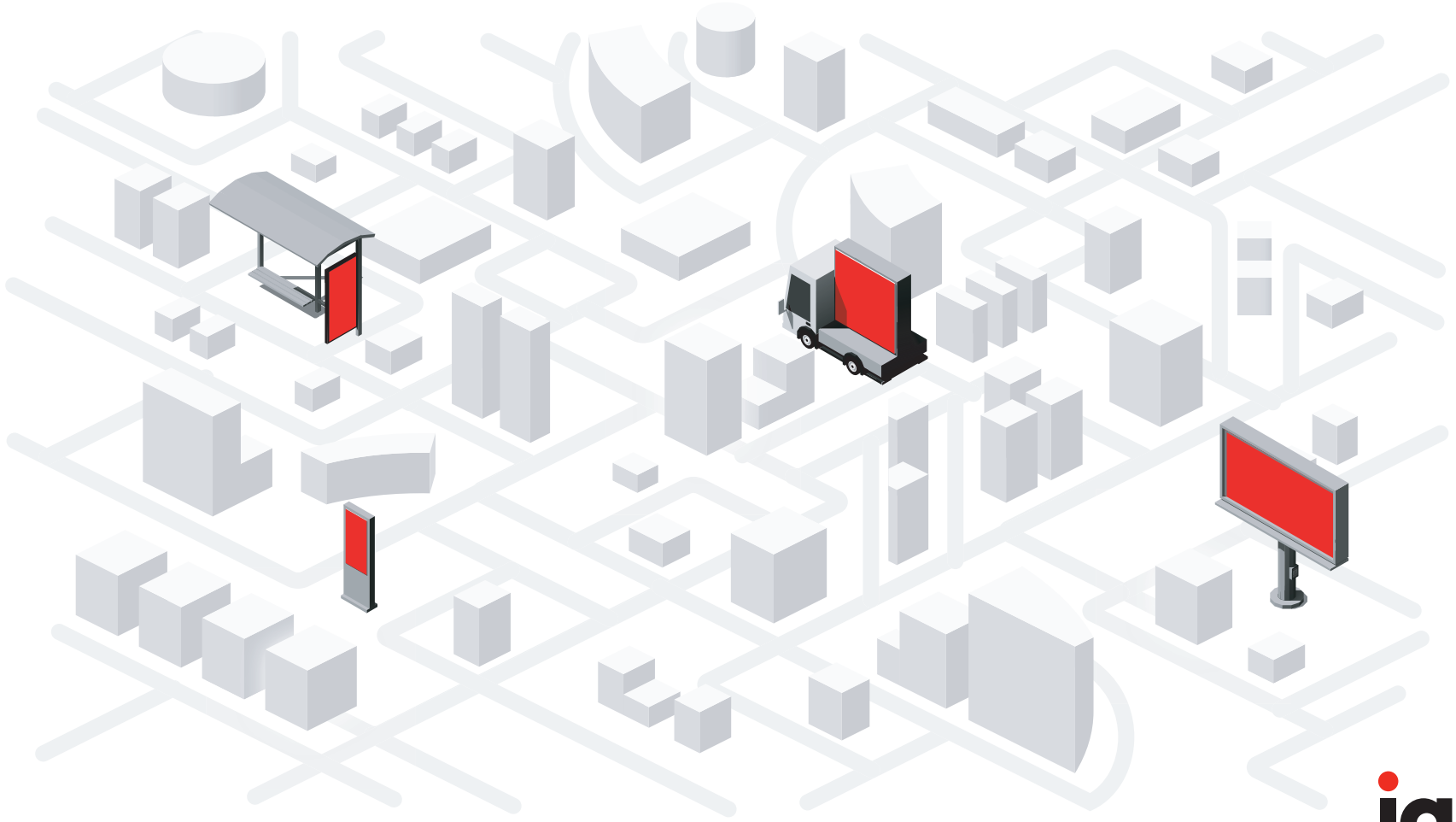
Privacy Compliance: no matter what type of data you use and whether you collect it directly or leverage second or third party providers, it is paramount to ensure that your organization's data practices respect consumer privacy and are compliant with all applicable laws. Key considerations include:

(1) **Consent:** ensuring that the user provided consent to collect and use their information wherever applicable.

(2) **Transparency:** ensuring that the user is clear on what information is collected, its uses and what options consumers have in this regard.

(3) **Control:** ensuring that the consumers have clear options to manage opting out of data collection and use.

RELATED TERMS



RELATED TERMS

Addressable Sales Data

In the case of marketers who do not own physical retail store or point-of-sale (POS) data, media vendors may partner with third parties who can help them obtain product level sales data for campaign effectiveness research. Modern POS systems store detailed transaction-level data for items purchased. Many of these systems also have built-in loyalty programs where an email address or home address can be stored, allowing the marketer to link purchases back to a specific user or device.

Addressable TV

Addressable TV represents connected TV experiences where advertising is targeted at the set-top-box level, to a specific household identified by a home address. Location analytics companies can create audience segments targeting those set-top-boxes by monitoring the location patterns of the mobile devices attributed to the home address.

Digital Out-of-Home (DOOH)

Out-of-home advertising that is digital in nature. Bus stops with screens, gas stations with TV displays and elevators with LCD screens are all DOOH advertising options currently available.

Out-of-Home (OOH)

In advertising, it describes opportunities to reach someone outside of their house. Billboards are considered OOH advertising, for example.

Parcels

Outline of a property boundary as defined by taxation and/or zoning boards.

Polygons

Outline of a building's geometry in great detail.

Tiles

Refers to a bounded, two-dimensional box (set, defined geography) on a map.

ACKNOWLEDGMENTS

Thank you to all contributing companies!

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