



IAB Mobile Location Data Guide for Publishers

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This document was developed by the IAB Mobile Location Working Group.

About the IAB Mobile Location Working Group:

The Mobile Location Data Working Group was formed to discuss best practices, standards, data, innovation, reporting and all issues related to utilizing location data for Mobile and Cross-Platform advertising. Representing members from all parts of the Mobile advertising ecosystem, the mission of the Working Group is to promote the adoption and use of location data for superior advertising solutions.

The following IAB member companies contributed to this document:

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- Factual
- Foursquare
- MapQuest
- NinthDecimal
- Thinknear
- Time Inc.
- Twitter
- The Weather Company
- xAd

Intended Audience

This paper is written for product or data managers in publishing companies who are considering leveraging mobile location data to enhance their advertising inventory and are looking for solutions to collect and monetize it while navigating issues such as data leakage and user experience. This document assumes basic knowledge about mobile location data such as its marketing use cases and location data sources. There is a resource section at the end of the document for publishers seeking additional background information.

As a final note, the use of location data may in some cases lead to heightened privacy concerns, and necessitate increased levels of consumer awareness, notice and choice. As always, be mindful and responsible with the usage of all consumer data.

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1 Why should publishers care about mobile location data?

Mobile location data is a treasure trove in the marketing world. Among the many values that it brings to publishers, four major benefits have emerged, including:

1. Enhanced ad targeting capabilities, driving higher eCPMs and fill rates
2. Incremental revenue generated by licensing mobile location data to other interested parties
3. Greater understanding of audience preferences which can be used to inform content development and delivery
4. Improved measurement of ad effectiveness gained by analyzing marketing's impact on real world behavior

1.1 Price Premiums for Location-Enhanced Ad Inventory

Mobile ad inventory enhanced by location data and/or utilizing location-based ad targeting capabilities, garners higher CPMs than untargeted inventory. IAB recently asked a small sample of publishers, ad networks and exchanges about the percentage uptick they see in CPMs for location-enabled vs. non-location-enabled inventory. Most of the respondents stated that location data usually drives an increase of between 20%-30% in eCPMs. Publishers typically monetize location data enhanced inventory through direct sales, Private Marketplaces (PMPs), or open exchanges (RTB). In section 2.2, we will explore specifics on how publishers can enhance inventory by leveraging mobile location data.

1.2 Increase Publisher Revenue Via Data Licensing to Aggregators for Attribution and Targeting Purposes

In addition to the CPM premium that publishers with quality location data can obtain in the marketplace, there is an alternate, growing revenue stream available through data licensing, with partners such as these highlighted below:

DATA PARTNERS / LICENSEES	MOBILE LOCATION DATA USE CASES
Media Partners	Build and enhance customer profiles
Media Measurement Firms	Analyze and attribute retail foot traffic
Advertiser Brands	Augment knowledge of customer behavior and interests
Data Aggregators	Build niche data solutions (ex: cross-device audience profiles) and enhanced targeting for data exchanges (ex: using beacon data to inform local, retailer or category-specific ad campaigns)
Publishers Lacking 1st Party Location Data	Publishers may license data from other publishers in order to gain insights into their own local, mobile audiences and to enhance the value of their media properties



PUBLISHER TIP

Note: when negotiating licensing agreements, publishers should keep a number of factors in mind. For more details on this, [please see section 2.2.2.](#)

1.3 Amplify Audience Insights

Mobile location information can provide valuable insights to publishers regarding their own audiences. By determining where and when a consumer-facing app or mobile site is used, publishers can make informed decisions about a wide range of things including product development, content creation and advertiser selection.

1.4 Meet Buyers' Increasing Demand for Offline Attribution (foot traffic) as a New KPI

One of the newer uses of location data in the advertising ecosystem is measuring the efficacy of an advertising campaign in driving foot traffic to a retail location. Location data can also help add higher certainty to the attribution of an ad to actual product sales through measurement with loyalty/purchase data. While these forms of measurement have been around since 2013, 2015 was the first year that it took on widespread adoption, and the ability to provide this measurement is increasingly being required by advertisers.

Publishers should be aware that even if you don't have access to location data directly via your own app/site, foot traffic can still be measured against ads served in your inventory by leveraging 3rd-party attribution companies who measure this via their own location data. Therefore, it is important for publishers to understand how foot traffic measurement works in order to provide this measurement to marketers or to allow marketers to evaluate performance using store visits as a KPI. Publishers lacking support for this KPI may lose out on future revenue opportunities. For more information on the mechanics of device usage geography, please see section 2.2.3.

2 I'm on Board, What Should I Do?

Given the benefits of mobile location data, the next question is how publishers can make the most of it. There are two major steps in taking advantage of most of the benefits: collecting data and monetizing data. No matter what the use case or stage of the data process / usage chain, quality of mobile location data is paramount. Over time, publishers that use high quality data will deliver meaningful content and user experiences and therefore have more satisfied users and better monetization opportunities.

Mobile location data quality is driven by a number of factors, outlined below:

- **Recency:** refers to the time between collection of the location data from the mobile app or website and the passing of that data to ad platforms. It's important that ad requests sent by app publishers to advertising networks or exchanges clearly state how recently a data point was fetched. OpenRTB 2.4 (which is slated for release in March 2016) will include parameters through which publishers can pass last data fetch time.
- **Accuracy:** refers to the mobile user's true real-time location at the time of an ad call relative to the location passed from the publisher to ad platforms. For an overview of the accuracy of various location data types, please see [IAB 2012's Mobile Local Buyer's Guide](#).
- **Precision:** refers to the level of granularity for a particular piece of location data. For example, a latitude and longitude comprised of two decimal points can pinpoint a mobile user's location to within approximately one kilometer, while four decimal points enables accuracy to within approximately ten meters.

2.1 How Can Publishers Acquire Mobile Location Data?

Publishers need to acquire mobile location data before they can monetize it. In the data acquisition process, publishers need to consider several different data sources; 1st party versus 3rd party and web versus app, each varying in data quality and applicable use cases.

2.1.1 Mobile Location Data Collected through 1st Party or 3rd Party Sources

Publishers can either collect mobile location data themselves (1st party data), or license data from others (3rd party data).

- **1st party Location Data**

is collected by the publisher directly from its audience. This can be collected in various ways, including from the device itself (via Operating System location services), from the user directly (via user registration information), or by translating other 1st party data into location data, (such as converting an IP address into location data). The primary advantage of 1st party location data is that the publisher has transparency and insight into the data collection methods and resulting data quality.

- **3rd party Location Data**

is collected by a 3rd party (e.g. an exchange, DSP, SSP, ad network or data provider) and made available for the publisher's use. Publishers can take advantage of 3rd party location data in many different ways, but these generally break down into either the publisher taking advantage of the data directly, or the publisher receiving a benefit from other actors using the data. In the former, the publisher could use some user identifiers (e.g., Ad ID, email address, cookie, etc.) to link with 3rd party location data and then take advantage of the 3rd party location data directly to enhance their inventory, which typically results in higher CPMs. In the latter, the publisher could, for example, distribute advertising inventory through an ad exchange and a DSP, which may use 3rd party location data to inform its bidding decision on the publisher's inventory. Publishers are likely to benefit from a higher fill rate, though they are unlikely to see a higher eCPM rate for this inventory because exchanges or networks usually get the credit in appending 3rd party location data.

When working with 3rd party data, it's important for publishers to scrutinize the location data providers they work with because the way in which the data is collected can provide insights into how well it will perform. Quality is the best indicator of whether or not location data will be a great fit for a publisher seeking to incorporate this type of offering into their product suite.

QUESTIONS PUBLISHERS SHOULD ASK WHEN EVALUATING LOCATION DATA PROVIDERS:

- (1) How are the providers collecting their data?
- (2) Are they transparent about their methodology (how the information is collected and transformed into useful data)?
- (3) Are there any issues surrounding privacy concerns? Would there be any risks or liabilities a publisher would have to assume in order to leverage this location data set?
- (4) How is this information refreshed and maintained? Is "data hygiene" taking place (where old location is aged out and new location data is ingested)?
- (5) How accurate is the data? Is there a way to test and benchmark the data to ensure that the applications would be of use to the publisher? Is any of the location data inferred from another source or data type?

Note - the above scenarios address user location data (data about where the user is). It doesn't cover place-specific data (data about where local businesses and points of interest are) which is needed to understand the specific place or type of places a user is visiting within a given latitude and longitude.

2.1.2 Differences and Commonalities of Mobile Location Data Collected through Mobile Web vs. Mobile App

The distinction between web vs. app drives some considerations when collecting mobile location data. Both mobile web and app location data are subject to the privacy settings determined by the user. The process of obtaining user permissions to collect location data on mobile web vs. mobile app are different. For more information on this, please see section 3 on data privacy.

What mobile web and mobile app location data sources have in common is the IP address. IP addresses can be mapped to country, city, state, postal code, and carrier information through an IP-to-geo database. However, this is not a perfect science since access providers can route users through different gateways (this is especially true of corporate networks.) IP addresses, additionally, cannot pinpoint down to a location more granular than city-level.

The main differentiator between mobile location data collected from web vs. app is that web-based location data is reliant on the browser (e.g. Safari, Chrome, Opera, etc.), while mobile app location data can be collected directly by the app via the user's device location service APIs.

It's challenging to collect mobile location data at scale from mobile web, mainly because the browser will request permission to collect location data from the user in every web browsing session in which a user visits a publisher's site that seeks to access device location data. The majority of location data gathered through mobile web are in the form of IP addresses. For publishers whose mobile traffic is derived solely from mobile web, it is nearly impossible to enjoy higher CPMs from packaging this data because of the lack of device IDs and ephemeral mobile cookies which are cleared when the browser closes.

Native mobile apps have more scope and functionality for collecting a richer set of data points that can be shared, such as latitude and longitude, altitude, accuracy, heading (direction of the device) and speed (the speed of the device). Not all of these data points are in demand today but they can potentially enrich future advertising opportunities.

2.1.3 Best Practices for Collecting Mobile Location Data

Publishers need to strike a balance between collecting accurate location data and delivering an optimal user experience (i.e., preserving battery life, reducing network activity). Understanding the potential impacts of location data collection on user experience is a key part of developing a location data strategy. Publishers should also be aware of the importance of ancillary datapoints that can occur with the use of location data, impacting campaign targeting approaches. For instance, in terms of location-driven campaigns that depend on the consumer's appearance at a particular latitude and longitude, it's important to distinguish between someone who might simply be driving near a store (e.g. Walmart) and someone who is stopping and actually visiting Walmart. A deciding factor in this case may be the duration of the user's proximity to the store. Depending on what segment the marketer actually wants to reach, location data exhibiting less proximity duration may need to be filtered out to avoid targeting "drive-bys" versus actual visitors to the store. In terms of best practices, data collection algorithms should be designed to optimize marketers' ability to reach the right person in the right place.

Given the overarching business need to supply accurate location for all bid requests, the next step is figuring out how best to leverage mobile devices' location services. For more best practices and information on implementation specifications for native apps on iOS and Android, as well as the HTML5 Geolocation API for mobile-optimized websites, please see links to additional resources in the appendix.

2.2 How Best to Use It?

In previous sections we talked about four ways publishers can benefit from mobile location data and how to collect location data for usage. In this section, we will discuss how to execute against those four options to make mobile location data work for you.

2.2.1 Price Premiums for Location-Enhanced Ad Inventory

The methods by which publishers can take advantage of location data to increase the value of ad inventory can vary based on the channels used to monetize ad inventory, for instance via direct sales, via private marketplaces, or via open exchanges.

2.2.1.1 Direct Sales

You can increase the value of your ad inventory by using location based targeting capabilities for your own direct campaigns. In order to do this you either need to build your own capabilities or work with a vendor that can provide these.

2.2.1.2 Private Marketplaces (PMPs)

Publishers first need to weigh the benefits and cost of going with a PMP approach, which depends on factors such as brand needs and publisher capabilities. Please see [IAB Private Marketplace checklist](#) that can help guide the decision.

Once you've determined that PMP is the way to go, there are a variety of ways to take advantage of mobile location data to enhance PMP functionalities. A few are discussed below to give you a sense of the possibilities, but it's not an exhaustive list. The specific mechanics of creating a PMP vary based on your SSP partner, so check their documentation or confer with your account manager on how to set up a PMP.

When you set up a PMP, a Deal ID will be generated, and only bidders who know the Deal ID will be able to identify the inventory in the exchange that meets the criteria set for the PMP. This does require more manual setup and interaction to coordinate between you and your buyers.

Location Data-Specific PMP

You can create a PMP that contains location data in the ad request.

Audience-Specific PMPs

If you are using location data to create location-based audiences, you can create PMPs based on specific audience segments (e.g., a PMP for "in-market auto buyers").

Proximity-Specific PMPs

Similar to audience-specific PMPs, if you are using proximity-based targeting, you can create PMPs that contain inventory that match a specific proximity targeting criteria (e.g., a PMP for "users near grocery stores").

Note – in order to take advantage of Audience specific PMPs or Proximity Specific PMPs you will need to have the capabilities to segment your in-house inventory by audience or proximity.

2.2.1.3 Open Exchange

Monetizing inventory via open exchanges involves passing location data into the exchange to take advantage of the uplift in fill rate/CPM. For the most part, the SSP or network SDK pulls mobile location data through OpenRTB protocols. The way this is accomplished depends on the publisher's specific integration with the ad exchange. Some SDKs will automatically pull location from the device (assuming users have set the requisite location permissions in their apps). Others may require you to do some configuration, or if you are not using an SDK, you may need to configure a tag or API call to properly submit the location data. You should refer to the developer documentation of the SDK or platform you are using for specific instructions on how to properly include location data with your ad requests.

2.2.1.4 Build Your Own vs Partner Considerations For Developing Location-Enhanced Targeting Products

Build Your Own

Publishers can apply mobile location data to three products to enhance their advertising offerings: 1) Proximity-based targeting 2) Location audience-based targeting 3) Location-enabled dynamic creative. Building these capabilities is likely a viable option only for the largest and most technically savvy publishers or ones who inherently use location data as a key part of their content or service. The specific details on what's involved in developing these capabilities are fairly technical. This section describes how to get started.

Proximity-Based Targeting

There are two major types of proximity-based targeting: geo-fence and zip/DMA targeting. Each requires data with varying levels of precision.

Geo-fence

Two major types of geo-fences are point-radius and boundary. The building process is slightly different for each. Regardless of which type of geo-fence is implemented, it is highly recommended to only use location derived from device-level location services to identify user's device location as geo-fence requires highly accurate and real-time location data. It does not work well with IP-address or user input location. The first steps of building this capability are:

1. **Identify physical locations of the business or landmarks the advertiser would like to geo-fence.** There are several ways of doing this, but some of the most common are to do the work manually or to buy a business location directory.
2. **Point-radius:** In a point-radius methodology, the publisher needs to acquire a circle of data that correlates to a certain radius around the central latitude and longitude coordinates of a business/landmark. The publisher would determine whether a user's latitude and longitude falls within that circle. This method is the easier of the two to implement.
3. **Boundary:** In a boundary methodology, the publisher needs to acquire a "complex polygon" that represents the boundary of the business or landmark. After the boundary is acquired, the publisher needs to determine whether a user's latitude and longitude point falls within the boundary. This method is the more difficult of the two to implement.

Zip/DMA Targeting

In order to offer this product, a publisher can rely on location services data as mentioned above. However, instead of a point-radius or boundary that relates to a business, the publisher must be able to determine if a user's latitude/longitude is within a specific zip code or DMA. Another option is for the advertiser to use a zip code centroid (the point in which the three medians of the geo triangle intersect). DMA targeting can be based on an IP address lookup. Note that registration and IP address are not as accurate as data acquired from device location services, but may offer an acceptable level of accuracy when executing zip code or DMA targeting. Between the two proximity-based targeting products, Geo-Fence and Zip code/DMA targeting, Zip-code/DMA is generally easier to implement.

Location-Based Audience Products

Using the information needed to build a geo-fencing product, the publisher can identify, from device location history, the users who frequent certain stores or landmarks. Location patterns can infer behavioral and demographic attributes as well as in-market intent and specific favorite retailers. Publishers can aggregate these device information types and create audience segments that may be appended to their inventory. In addition, when combined with 3rd party data sets such as census data, events data, or purchase data, publishers can develop a richer understanding of the user segment and then target those audience segments in relevant campaigns.

Partnering to Create Location-Enhanced Products

For publishers that choose not to build their own location data infrastructure, there are a number of vendors that can provide these types of capabilities which can be incorporated into targeting products.

CONSIDERATIONS PUBLISHERS SHOULD KEEP IN MIND WHEN EVALUATING LOCATION DATA VENDORS:

- **Technicalities**

How will the data vendor integrate with your publisher-platform?

- **Economic Model**

What's the data vendor's pricing model and how does it align with your business? What is the vendor-publisher cost/margin split?

- **Product Capabilities**

Do their capabilities give you what you need to be successful in selling media? Specifically:

- o **Proximity-Based Targeting:**

- o Does the solution come with Places data (also known as Point Of Interest or Venue data) or is it a technology solution which will require you to obtain your own source data?
- o If it comes with Places data, what's the depth and breadth of the data? Does it give you coverage of all the places you'd like to target?
- o What's the maximum number of Places that can be targeted or geo-fences that can be created?
- o How flexible is the solution with respect to radii of geo-fences? Is there a maximum or minimum?
- o How easy is it to set up targeting and obtain audience reach estimates? How does it slot into your ad ops and sales workflows?

- o **Location-Based Audiences**

- o What's the depth / breadth of the audience segments they can provide?
- o Can you create custom audience segments / custom audiences?
- o How easy is it to set up targeting and get reach estimates? How does it slot into your ad ops and sales workflows?
- o If licensing in 3rd party audience segments, what's the match rate with your user base?
- o If building audiences on your own data, for what percent of your users do you get in-depth profiles?

- **Exclusivity**

Will you be allowed to offer competing location data sets as part of you offering? Or will client exclusivity be required?

2.2.2 Data Licensing

When considering licensing agreements, there are several factors that publishers should keep in mind.

Privacy – The number one question that publishers should ask themselves is “Do I have permission to sell my users’ data?” The good news is that staying on the right side of consumer concerns and industry best practices should not be difficult. Please see section 3.1, for more details.

Revenue model – There are three primary revenue models associated with direct data licensing: fixed pricing, revenue share, and variable (based on size of the audience segment or some usage metric, such as impressions delivered). Each of these has various amounts of risk (with respect to how much revenue one may actually generate) and operational complexity, and these should be taken into account as with any sort of pricing and revenue negotiation.

Data recency, accuracy, precision and volume – Publishers should be prepared to talk about how their location data is collected (via location services, registration data, postal code centroid, or IP address lookup), what type of identifiers will be passed (IDFA, AAID, or some hashed version), how much data will be available on a monthly basis, and what specific data elements will be available.

Integration – Generally speaking, there are three main ways in which data is transmitted from publishers to data aggregators. Below are the pros and cons of each arrangement (though none is categorically better than the other).

- **On-Device (SDK)** – some data aggregators may furnish an SDK that publishers install in their apps. As with any SDK, publishers should consider the impact this may have on app stability and performance and the ability and operational overhead of getting your app re-approved on the app store. The upside to this however is that the SDK handles the data collection and transmission, reducing the amount of technical work the publisher has to do.
- **Server-Side API** – Publishers may also be able to transmit data via a server-side API. While this removes some of the issues around installing a 3rd party SDK in your app, it also puts the burden of collecting, storing, and writing the data via the API on the publisher.
- **Bulk File Transfers** – Lastly, there may be an ability to periodically submit a bulk file of the data to the data aggregator. In this case, the publisher will still be responsible for collecting and storing the data, and then sending a file on a periodic basis to the data aggregator.

Sometimes the data aggregator and/or publisher may do a data evaluation prior to entering into a long-term commercial relationship. The advantage of doing a pre-evaluation is that it provides clarity to both sides on data quality and value. In addition, the process of pulling/sending a data sample will give the publisher insight into how their own data systems work. The disadvantage is that it requires effort on both sides and, if it doesn't lead to a commercial arrangement, the effort is without return.

2.2.3 Audience Insights

Any gathered location data should be an extension of a publisher's established analytics practice. By itself, the data can be unwieldy and difficult to derive insights from. It requires the publisher to either have (a) in-house talent that can combine the data with other sources to enrich and extract value or (b) outside partners with whom they can achieve the same result. Combining mobile location data with other sources such as registration data, product analytics, and surveys can yield a more complete picture of who a publisher's consumers are and how they are consuming the content.

In particular, data gathered from devices is typically far more precise and in some cases more accurate than self-reported information. As such, publishers can use the information to corroborate registration information. If, for example, the 90210 zip code was provided in registration data, but all mobile usage data points exist in 30307, the user may actually be a resident of Atlanta and not Beverly Hills. It then falls to the publisher on how to handle and reconcile that knowledge from both a product and an advertising perspective.

Product design and user experience design can also be influenced the location data. By matching what a user did and where, product managers have a chance to look for use case validation and/or entirely new opportunities to discover how their products are being used. This information can drive feature additions, subtractions or incremental improvements.

Geographies of usage can also lead to new areas of content coverage and also provide a publisher with ways to focus valuable resources on locations of interest.

2.2.4 Provide Buyers with Offline Attribution as a New KPI

Here's how it works: an advertiser will typically alert you as the publisher, that they will be running a foot traffic attribution report for a given campaign. If you are running a campaign for a brand with physical locations, you might want to ask proactively if they will require foot traffic attribution. This will ensure you don't get caught with a "surprise KPI" at the end of the campaign.

- The advertiser will either ask you to fire a pixel with the creative, or to generate log files of who was served the ad. In the case of a pixel being fired, you may have to first become certified by the measurement company. Certification usually entails a compliance test that ensures all data is being returned accurately and then a discrepancy test that ensures that counts are the same between your company and the measurement firm. Certification usually does not cost anything.
- The publisher runs the campaign as normal, either firing the pixel or providing log files to the measurement company
- The measurement company will use their own location data to determine if an exposed user went into a specific retailer, and then provide a report back to the advertiser.
- Note that publishers do not need to have access to location data when serving an ad for a campaign that will be measured on foot traffic attribution. The foot traffic attribution company will conduct the analysis and measurement using their own location data.

As of the time of this writing, in general, there are two different methodologies (shown below) that foot-traffic measurement companies use both for data collection and measurement.

DATA COLLECTION METHODS OVERVIEW

Data Collection Method	Data Source	Pro	Con
Panel-Based Approach	Mobile user agrees to share location data with measurement company, typically through installation of a mobile app provided by the measurement company. SDKs may also be used to collect data via 3rd party apps to augment first party data collection.	Persistent data collection	Limited number of users
Big Data Approach	Data may be collected via ad requests on the open exchanges, or alternatively, third-party user data may be collected via SDK or some other data transfer mechanism	Measurement firm will generally have access to all mobile users seen on the exchanges	Lacking in persistent* data <i>*If the data relies on ad requests, user location may only be obtained when that user triggers an ad request that has latitude and longitude parameters. The result can be fairly sparse data on most users and dense data on a subset of users. Consistency can be managed through statistical "big data" methods.</i>

MEASUREMENT METHODS OVERVIEW

Measurement / Attribution Method	Key question
Method A: Foot Traffic (Absolute)	Did someone who saw my ad go into a store?
Method B: Lift in Foot Traffic	Did my ad drive an incremental visit to a store?

Note: Both of these measurement methods above typically require A-B Testing

For more detailed information on methodology, please review "[IAB Mobile Marketing ROI and Location Data](#)" released by IAB in March 2015.

Another important question for a publisher is "Who will pay for the attribution report?" Typically it is the agency or advertiser who will try to dictate this answer. If the agency does require the publisher to cover the costs, it is probably fair to say that they expect the costs to be included in the CPM. Needless to say, negotiation and transparency are recommended to establish a trusted business practice. However, there are cases where the agency pays for the cost of the report.

3 I Want to Make Sure My Audience is Happy and My Location Data Is Secure

3.1 Obtaining User Permissions

As the types of data that can be collected via mobile devices—through web and app—increase, so too does the list of possible permissions. Publishers should—in the process of collecting data—make every effort to obtain the end user’s permission, and to provide concise, clear privacy policy notices describing how their app products and/or web services use and share data and what the consumer’s choices are.

Publishers can request permission via a simple opt-in message by which the user indicates that they understand their location information is being collected by the publisher. The process of confirming permission to collect mobile location data on mobile web is different from that of mobile apps.

With mobile web, assuming the user’s device-level and browser-specific location access settings are turned on—users will be prompted when visiting a web site requesting current location data—with a message saying “web site [URL] would like to use your current location”. At that point, the user can choose “Don’t Allow” or “OK”. This request must display the website hostname, and the option for the consumer to accept or deny permission.

While there are nuances depending on the platform, typically, iOS and Android apps that request user location must also get the user’s permission via a pop-up. This might happen the first time the app is open, but other times this might occur when a user attempts a function that utilizes location services. Usually, once a user grants an app permission to use their device’s location data, it retains the setting moving forward unless the user changes the permission in the location services setting within the device settings. A user is highly likely to grant permission for an app that has clear benefit or justification for accessing the device’s location. Publishers should clearly convey to users the value-add and enhanced product benefits of accessing users’ location data.

Again, the publisher should clearly state in their privacy policy why they are collecting this information and how it may be shared.

Sample Publisher Questions and Issues Related to Location Data Usage and Disclosure

Always make sure you have a robust privacy policy and that you consult with your legal counsel as appropriate. Some of the questions to think about (and discuss with counsel) when drafting a privacy policy include the following:

- Do I have permission to sell my users’ data? Do an audit of your app and web user experiences to see how location data is being used (and disclosed in your privacy policy)
- What type of data is being collected? (PII/Personally identifiable information, Precise Location Data, or Personal Directory Data)
- What type of information is being collected from the handset? (Type of device, unique device ID, wireless mobile subscriber ISDN numbers, IP address, operating system, browser type)
- How, and for what purpose will location data be collected, used and transferred to 3rd parties, specifically;
 - o Is Information provided going to be used by 3rd party advertisers?
 - o Is information going to be shared within the family of companies and / or outside the family of companies of which you are part?
- Will one’s information be combined with other information for advertising purposes? If so make sure this is stated this in your publisher privacy policy.
- How can one opt-out of targeted advertising?

- How can one access and update their information?
- How can one contact your company directly? Is your company (and/or holding company's) name and address clearly visible?

As publishers consider what location data to collect and how to obtain associated user permissions, a valuable resource to consult is the Digital Advertising Alliance's Self-Regulatory Principles (<http://www.aboutads.info/principles>) and the Network Advertising Initiative's Code of Conduct (<http://www.networkadvertising.org/code-enforcement/code>). If you are already a participant in the DAA or NAI, there may be additional guidelines to review and incorporate that are mobile-specific. The DAA and NAI resources mentioned above are endorsed and supported by all the major advertising associations including the IAB.

Please note the above privacy policy guidelines may differ in an international (outside of U.S.) market. If you operate in international markets, make sure that your counsel has localized your privacy policy to comply with any regional or local best practices or regulations. Also, it's important to note that there have been changes to the way US-based companies may transfer consumer data with companies in Europe. US and European officials have--as of February 2nd, 2016--agreed to a data-sharing deal that would replace the Safe Harbor pact (which was overturned by a European court in October of 2015). For more details on how this policy will be implemented and what US-based companies will need to do in order to securely and legally transfer data between the continents, visit: <http://www.export.gov/safeharbor/>

3.2 Data Leakage

For some publishers, the risk of data leakage has dissuaded them from utilizing location data. However, there are measures and controls that can be implemented to mitigate this risk so that publishers can benefit from the use of mobile location data.

According to [AdOpsInsider](#), data leakage refers to the unwanted or unknowing transfer of audience data from one party to another, typically from a publisher to an advertiser, although in some cases, from an advertiser to an intermediary, such as a data exchange or ad network. For publishers, data leakage happens when advertisers, ad networks or data companies collect publishers' user data without those publishers' permission, by either firing a pixel when the ads load (which may eventually set a cookie) or by adding a redirect link between the ad click URL and the landing page. By aggregating publishers' audience cookies, advertisers, ad networks or data companies can build segments for targeting on other websites. Data leakage can be detrimental for publishers and consumers in the following ways:

1. Erodes publisher revenue. With data leakage, advertisers now can find the publisher's audience on other sites at a cheaper price.
2. Can slow down the consumer's experience because the more pixels firing on a page, the longer it takes for the page to load.
3. Data Leakage may compromise user data privacy.

Trying to avoid the risk of data leakage by not using location data all together is short-sighted. With careful controls, the value of leveraging high quality location data, as we discussed in section 1, will outweigh the risk. To learn more about how to control and mitigate the risk of data leakage see IAB's "[Mobile Data Usage & Control Primer 1.0](#)" released in Dec 2014, which outlines best practices that publishers, advertisers, ad networks and data aggregators should all adhere to. Publishers may also benefit by reviewing in tandem with their advertiser and agency partners, the best practices released in the [4A's/IAB Standard Terms and Conditions for Interactive Advertising](#). The overarching principle is that data collection, subsequent use, and appropriate compensation should be transparent and agreed to by all business parties. For more details, please see page 15 -16 in the [IAB Mobile Data Usage and Control primer](#).

4 Background Material Regarding Mobile Location Data That My Buyers Already Have

- 4.1 Types of location data
 - [2012 IAB Mobile Local Buyer's Guide](#)
 - [2013 MMA Terminology Paper](#)
- 4.2 Marketing use cases
 - 4.2.1 Targeting
 - [2012 IAB Mobile Local Buyer's Guide](#)
 - [2013 MMA Terminology Paper](#)
 - 4.2.2 Campaign Objective
 - [2014 IAB Mobile Location Use Cases and Case Studies](#)
 - 4.2.3 Attribution
 - [2015 IAB Marketing ROI and Location Data](#)
- 4.3 [12 Questions Every Buyer Should Ask About Location Data](#)

Appendix

Best practices In Collecting 1st Party Location Data and Ensuring an Optimal User Experience

[IAB OpenRTB API Specification Version 2.3.](#)

[IOS Apple's Location Awareness Programming Guide](#)

[Implementing location tracking on Android Training Documentation](#)

[Thinknear Location Insights - Improving Monetization: A Location Overview For Mobile Publishers](#)