



House of Representatives  
Committee on Energy and Commerce

Joint Hearing, Subcommittee on Commerce,  
Trade, and Consumer Protection and the  
Subcommittee on Communications,  
Technology, and the Internet

*“The Collection and Use of Location  
Information for Commercial Purposes”*  
Location-Based Advertising Testimony

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## Useful Networks Overview

### 1.1. Company Description

Useful Networks ([www.useful-networks.com](http://www.useful-networks.com)) is a Denver-based company that delivers innovative mobile location technology products to end-users, mobile operators, application developers and mobile marketers. Founded in July 2006, Useful Networks has consistently provided technologies that bring value to location. The company's three core goals are to create the most compelling location-aware applications for web and mobile; to offer brands and agencies a completely new way to connect with consumers; and to act as a location clearinghouse for content providers with our PlaceWhere™ Platform.

Useful Networks is a wholly owned subsidiary of TruePosition ([www.trueposition.com](http://www.trueposition.com)). TruePosition is the global leader in location determination and intelligence solutions that help protect citizens, combat crime, and save lives. TruePosition location solutions meet the mission-critical requirements of enterprises and government agencies. These solutions include future-proof technologies, innovative applications, and comprehensive networking and systems services. TruePosition has more patents, technical expertise, and operational experience in wireless location than any other company in the world. Every day more than 100 million people depend on location services supported by TruePosition technology. TruePosition is a wholly owned subsidiary of Liberty Media Corporation attributed to the Liberty Capital group (Nasdaq: LCAPA), which owns a broad range of electronic retailing, media, communications and entertainment businesses. For more information, visit [www.trueposition.com](http://www.trueposition.com) or [www.libertymedia.com](http://www.libertymedia.com).

### 1.2. Location Aggregator Model

A location aggregator provides its third-party partners (e.g., application developers, mobile marketers) with location connectivity to a variety of location sources, including wireless carrier location infrastructure. Location sources include (but are not limited to) on-device GPS (with or without carrier assist data), carrier network-based location, on-device Bluetooth and WiFi-based positioning.

In order to derive an end-user's location from any source, the end-user must be presented with notice of how, when and by whom location will be used, such that an informed consent by the end-user may be provided (and may subsequently be revoked) at any time. Therefore, location aggregators may seek to additionally provide policy & privacy management capabilities to ensure the aggregator's third-party partners' compliance with privacy best practices as manifested by a variety of stakeholders. Key stakeholders in this regard include (but are not limited to) industry and/or government entities (e.g., CTIA, FTC, FCC, MMA), wireless carriers and end-users.

### 1.3. PlaceWhere

#### 1.3.1. Location connectivity

The PlaceWhere platform enables third-party application developers to access a variety of location sources via a single API – in the near term, primarily wireless carrier-based sources. In addition to carrier-based location sources, the API also supports emerging sources such as WiFi- and Bluetooth-based location, providing 3<sup>rd</sup> party application developers with a range of options with respect to which location type(s) are best suited to their application.

The various location sources can provide a very different “yield,” or precision of location fix, based on a variety of conditions. For example, on-device GPS can provide relatively high location granularity, whereas Cell ID tends to provide less-precise location. The yield of the respective sources in turn aligns with the performance requirements of various commercial applications. While less-precise Cell ID-based locations may suffice for a location-aware mobile marketing campaign, more-precise assisted GPS (where “assist” data is provided by the carrier network) is typically required by location-based social networking applications.

#### 1.3.2. Multi-tiered privacy framework

The multi-tiered privacy framework is designed with the varying yet complementary needs of the various stakeholders in mind. Specifically, the framework is based on the following stakeholder tiers:

##### 1.3.2.1. Regulatory

The regulatory tier embodies the various laws, rules, regulations and best practices as they relate to access to and use of the end-user’s location.

##### 1.3.2.2. Wireless carrier/Device-as-carrier

The respective wireless carriers will institute a set of requirements with respect to the conditions under which each carrier will allow access to and use of its customers’ location. These requirements will be similar in many regards, but will also differ in material ways, such that a cross-carrier policy framework is desirable to third-party application developers in order to simplify the development process while ensuring compliance with carrier-specific requirements.

##### 1.3.2.3. End-user

The controls provided to the end-user are tailored to the specific type of application and its associated “risk profile” with respect to usage of location information. Such end-user controls consistently manifest the key principals of informed consent, explicit opt-in (vs. default opt-in) and permission revocation, regardless of the application’s underlying risk profile. Examples of disparate risk profiles include (but are not limited to):

- Peer-to-peer locate (Enterprise/Account holder control)
- Peer-to-peer locate (End-user control)
- Self-locate (news/info, games)
- Self-locate (search/advertising/marketing)

### 1.3.3. Location-based advertising capabilities

#### 1.3.3.1. Content localization

Tailor mobile web content (e.g., news & weather) based on the end-user's location. More contextually relevant information tends to result in more effective user engagement.

#### 1.3.3.2. Ad geo-targeting

Utilize the end-user's location in order to improve the relevance of an advertisement. For example, a local business owner could purchase advertising inventory such that only end-users in his geographic region would see the advertisement, thereby enhancing the campaign's effectiveness by ensuring the local owner only pays for impressions/clicks from local potential customers.

#### 1.3.3.3. Store locator

Utilize the end-user's location in order to provide guidance to nearby store/franchise locations. For example, a national auto brand may utilize the end-user's location in order to provide a list of dealer locations nearest the end-user.

#### 1.3.3.4. Proximity alert

Proximity-based marketing programs have traditionally been limited by the cost and utility of location technology. For example, a marketer may desire to continuously "poll" the locations of opted-in members of its loyalty program for the purpose of sending offers when an opted-in member is within 100 yards of a store location. This use case would be prohibitively expensive due to the "per-dip" nature of location expenses.

The emerging "check-in" model is enabling the transition from passive (i.e., the network tracks opted-in subscribers) to active (i.e., the end-user "checks in" when arriving at a location and is provided an incentive to do so). Examples of check-in applications via which proximity-based marketing is taking place include BrightKite, Foursquare, Gowalla and MyTown. It is anticipated that "check-in" capabilities will emerge as a ubiquitous feature set across a variety of location-based applications and services, given the aforementioned location cost & utility constraints.

2. LBA Value Chain

2.1. Publishers

Own and manage content portals via which audience is aggregated and into which mobile advertisements can be published. Work with various stakeholders to maximize revenue & profits by optimizing fill rates. Examples: CNN, Where (uLocate)

2.2. Ad Networks

Aggregate publisher inventory (available ad space and impressions) and sells ad campaigns. Examples: AdMob, Quattro Wireless, Millennial Media

2.3. Ad Servers

Software-based platform; enable campaign management, ad selection and ad serving capabilities. Examples: MADS, OpenX

2.4. Ad Exchanges

Aggregate Ad Networks for publishers, enabling them to serve the most profitable ads from the available networks. Example: AdWhirl

2.5. Ad Agencies

Buy advertising from Ad Networks, designs creative campaigns and sells to brands. Example: Saatchi, Hyperfactory

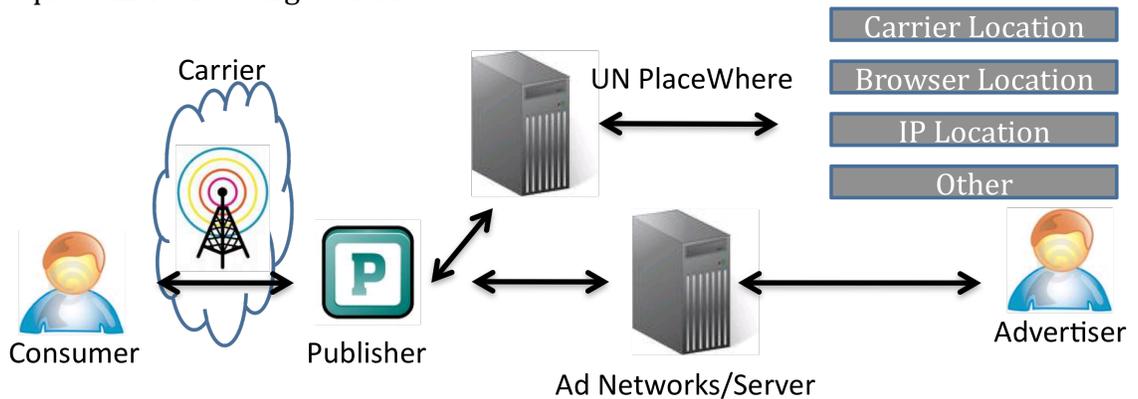
2.6. Location Enablers

Provide location data from a variety of sources, making it available to publisher content targeting and ad selection processes. Example: Useful Networks

2.7. Ecosystem Examples

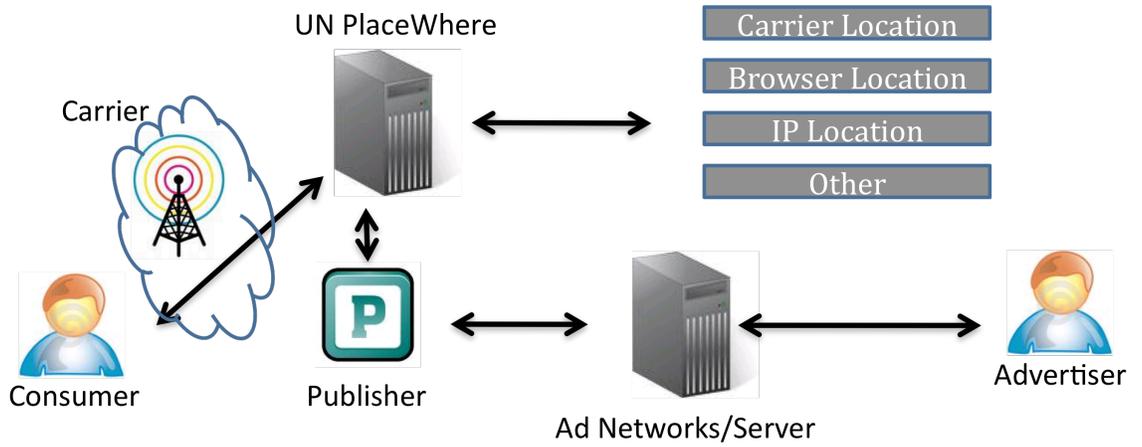
2.7.1. Publisher initiates location request

Publishers request location from PlaceWhere prior to receiving a request for content from the Consumer. Publishers could also use this location to request and serve targeted ads.



2.7.2. Consumer request proxied through PlaceWhere

Consumer requests are proxied thru PlaceWhere, and the request is location-enabled before it gets to the Publisher. The Publisher may then use location to make an ad request.



### 3. State of LBA

#### 3.1. Opting In, Opting Out

The ability to use the end-user's location for the purpose of providing a location-enhanced advertisement is fundamentally predicated upon an explicit opt-in, where such consent is provided by the end-user on an informed basis with respect to if, how and when and by whom their location may be used. Correspondingly, end-users may subsequently opt-out of their location being used for such purposes. It is worth noting that current online-based advertisements leverage coarse, IP-based location to localize display ads without requiring an opt-in from the end-user.

#### 3.2. Passive vs. Active Location & Impact of Check-In Model

The emerging "check-in" model is enabling the transition from passive (i.e., the network tracks opted-in subscribers) to active (i.e., the end-user "checks in" when arriving at a location and is provided an incentive to do so). Examples of check-in applications via which proximity-based marketing is taking place include BrightKite, Foursquare, Gowalla and MyTown. It is anticipated that "check-in" capabilities will emerge as a ubiquitous feature set across a variety of location-based applications and services, given the aforementioned location cost & utility constraints.

3.3. Location Context: Enabling the Transition from Impressions to Performance  
Mobile devices in general – and location-aware devices specifically – add significant context for advertisers. Such precise context has been largely unavailable via traditional advertising channels such as print and online. Combining context with mobility creates new opportunities for advertisers to improve the efficiency of their advertising spend by focusing on conversion.

#### 3.4. "The Last Mile": Conversion Beyond the Click

The addition of context via location – coupled with the increasingly dynamic nature of advertising technologies – creates an environment in which advertisers are increasingly willing to pay premiums for performance-based campaigns (e.g., cost-per-click, click-to-call, offer redemption) with proven ROIs, and are less willing to pay for traditional impression-based campaigns (e.g., cost-per-thousand impressions, or CPM) with uncertain ROI with respect to conversion. As consumers engage with campaigns via their mobile devices, the opportunity to further "prove" ROI via offer redemption (e.g., the consumer clicks on a banner ad, receives a coupon code and redeems the offer by entering the coupon code at the merchant's point-of-sale terminal) will in turn improve, thereby solving "the last mile" issue of proving an advertisement led to the desired action by the consumer. An example of a performance-based campaign is a national auto franchise which uses location to optimize an ad, leading to (a) a click by the end-user (advertiser pays based on CPC, not CPM) and (b) redemption of an offer (e.g., \$10 iTunes gift card for scheduling a test drive).

#### 4. Case Studies & Examples

##### 4.1. Storefinder Trial – Quick Serve Burger franchise & National Auto Dealer

###### 4.1.1. Executive Summary

UN worked with a major U.S. Carrier (which will be referred to as “the carrier”) and a major advertising network (which will be referred to as “the ad network”), who in turn worked with a major fast food restaurant chain (Trial #1) and a major automotive company (Trial #2), to launch two location-based advertising trials in the United States. The LBA Trials were centered around a Store Finder page and were designed to test and prove the added benefits that location-enablement brings to mobile marketing campaigns.

###### 4.1.2. Trial Setup

Both trials created very similar end user experiences. The end user experience involved two call-to-action banner ads displayed on the carrier’s mobile portal enticing the customer to find the two brands’ store locations. Although both banner ads were virtually identical (except for the opt-in language featured on the location-enabled banner ad), each banner ad resulted in a different after-the-click experience.

- Control Group: 50% of the banner ad clicks directed the user to a manual zip code entry page.
- Trial Group: 50% of users saw a location-enabled banner ad that used the user’s location to generate a Store Finder page without requiring the user to enter in their zip code.
- Trial Purpose: to test whether a location-enabled marketing campaign will result in a higher percentage of Store Finder page views (i.e., higher conversion rates).

###### 4.1.3. Trial Results

- Brand #1 – Quick Service Restaurant Vertical: ~100% of those users who clicked on the location-enabled banner ad saw the fast food restaurant’s Store Finder page. In contrast, only 28% of those users who were directed to the manual zip code entry page actually submitted their zip code and viewed the brand’s Store Finder page. Stated differently, the non-location enabled banner ad resulted in a 72% abandonment rate.
- Brand #2 – Automotive Vertical: ~10% of those users who were directed to the manual zip code entry page actually submitted their zip code and viewed the automotive company’s Store Finder page (compared to ~100% of those users who clicked on the location-enabled banner ad).

###### 4.1.4. Trial Findings

The quick serve restaurant trial showed that a location-enabled solution yields 3 times as many Store Finder page views than does one requiring a manual zip code entry. The automotive company trial showed that the location-enabled solution yields 10 times as many Store Finder page views. Therefore, it is reasonable to conclude that a location-enabled marketing

campaign is, at a minimum, 3 times as valuable as a non-location enabled marketing campaign.

#### 4.2. Upcoming LBA Trial – MoVoxx

##### 4.2.1. Trial Overview

MoVoxx is a location-based mobile ad platform that intelligently serves ads into mobile content reaching over 30 million unique US mobile users. GeoSense™ platform combines real-time user location data within the ad serving process to enable national brands and local merchants the ability to launch location-based mobile advertising campaigns – at scale.

Useful Networks is providing location connectivity (to enhance Movoxx's existing data set) and privacy management (to ensure compliance with best practices). This new geo-targeting capability is expected to improve relevance of the mobile channel for small business and local merchant advertisers. To reach them, MoVoxx will aggregate local merchants' mobile campaigns, through partners such as Citysearch, Marchex and iPromote, as well as by working directly with larger brands interested in geo-targeting such as Sears.