



MOBILE MARKETING ASSOCIATION

MOBILE LOCATION BASED SERVICES MARKETING WHITEPAPER

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I. INTRODUCTION

For many marketers, mobile is the Holy Grail for Location Based Marketing. Location Based Marketing promises an unprecedented new way to connect with consumers and deliver highly relevant and targeted messages at a time and place when a consumer is most likely to act on them.

The Mobile Marketing Association (MMA) has developed this whitepaper to educate the industry on Location Based Marketing, and to provide a general overview for mobile marketers seeking to understand the potential opportunities for Location Based Services¹ (“LBS”).

The document outlines various Location Based Marketing opportunities and LBS products, along with appropriate measures to ensure a positive end user experience. Additionally, it includes definitions, attributes, and examples of Location Based Marketing that are currently being used in the marketplace, as well as future use cases, all intended to help direct the reader on how location technology may be applied in real world scenarios.

This whitepaper should encourage experimentation with and adoption of mobile Location Based Marketing, and invites companies to share best practices with the MMA to help influence future mobile Location Based Marketing Guidelines.

¹ Location Based Services are services or applications created for IP capable mobile devices that require knowledge about where the device is located in order to provide the service. (Source: <http://searchnetworking.techtarget.com/definition/location-based-service-LBS>).

2. LOCATION BASED MARKETING DEFINED

Location based marketing is broadly defined as: any application, service, or campaign that incorporates the use of geographic location to deliver or enhance a marketing message/service.

Geographic location data may be obtained via a wide variety of methods and technologies. A consumer can directly provide a Postal Code, Zip Code, or City; or the precise location² of the consumer and their device can be automatically determined using services provided by mobile operators or automatic detection of location as determined by the hardware, i.e., GPS-enabled or, wi-fi-enabled devices. Marketers can use this geographic location as a means to deliver a more relevant, targeted advertisement and/or a service, to the user.

To allow continued growth, awareness and trust of mobile Location Based Marketing, it is important that marketers exercise great care to give consumers explicit and simple control of if, when, and how their location data will be used. Examples of this will be detailed later in this document. Note that in some regions, local laws and guidelines should be followed when using Location Based Services³

² Precise location is a subset of geographic location data, which is defined as any technology that is capable of determining with reasonable specificity the actual physical address of the device at a specific moment in time. Technologies such as those providing GPS level latitude-longitude coordinates or wi-fi triangulation would fall in this category, while technologies such as IP address, postal code, zip-code, city or even neighborhood would fall into a more general geographic location category. If a consumer declares specific address information, it could be considered precise geographic location information if information is also present that indicates the user is actually, physically present at that location.

³ In the United States: [CTIA Location Based Services Guidelines](#)

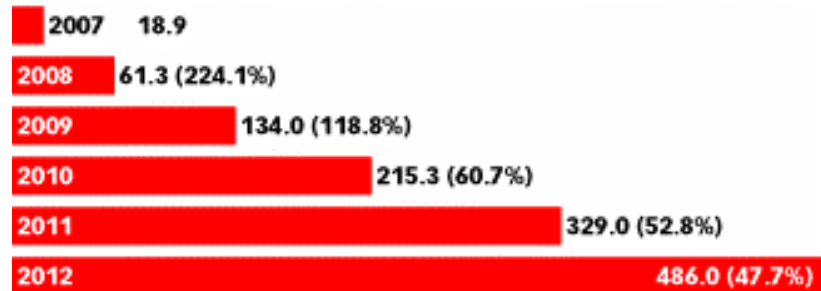
3. CONSUMER UNDERSTANDING AND ADOPTION OF LBS

Mobile Location Based Services are growing at a rapid rate. Spearheaded by applications such as navigation, local search, social networking, and family and friend finding services, public understanding and adoption of the potential uses of Location Based Services is growing rapidly.

As increasing numbers of consumers learn and embrace these services, the potential for using Location Based Marketing also grows.

Studies have shown that the majority of mobile consumers embrace the potential for Location Based Marketing.

Mobile Location-Based Service (LBS) Users Worldwide, 2007-2012 (millions and % change)



Note: mobile-phone-based LBS only; excludes personal navigation devices and telematics applications
Source: eMarketer, September 2008

098264

www.eMarketer.com

Activities for Which Location-Based Service Users in Select Countries Have Used Location-Based Services, Dec 2010

% of respondents

	US n=150	UK n=129	Germany n=142	Canada n=178	Japan n=172	Total n=771
GPS navigation	71%	81%	69%	62%	67%	70%
Weather alerts	50%	40%	45%	25%	69%	46%
Traffic updates	34%	45%	47%	22%	45%	38%
Restaurant info/reviews	41%	41%	37%	15%	57%	38%
Locating the nearest convenience services (gas, coffee shops, etc.)	37%	30%	28%	43%	39%	36%
Shopping/coupons (special offers)	33%	32%	24%	19%	58%	33%
Find nearest ATM	30%	22%	27%	17%	34%	26%
Get movie showtimes	32%	18%	8%	20%	32%	22%
Local news	25%	27%	15%	11%	21%	20%
Social networking	25%	23%	18%	11%	15%	18%
Gaming	13%	9%	3%	6%	17%	10%
Geo-tagging photos	7%	6%	6%	6%	2%	6%
Enhanced 911	4%	2%	3%	2%	11%	5%
Locating your children	5%	3%	1%	1%	5%	3%
Other	9%	5%	4%	9%	1%	6%

Source: Microsoft, "Location Based Services Usage & Perceptions Survey" conducted by Cross-Tab Marketing Services, Jan 26, 2011

124594

www.eMarketer.com

LBS has grown so much in the last few years that a number of perspectives are worth examining, as different opportunities might present themselves from one region to the next.

For instance, consumers in Asia Pacific countries are well acquainted with such services and have embraced them for some time. In European countries, adoption is decidedly ahead of their North American counterparts. Nevertheless, growth, opportunity and challenges are all present, regardless of what region is being explored. Here's a glimpse of LBS activities from around the globe.

MMA Perspective: North America and Europe

The MMA consumer study conducted in 2010 shows that when used, Location Based Advertising is effective in engaging consumers. Consumers are increasingly expressing interest in receiving location-based offers on their phones from their favorite retailers when they are nearby, provided they have opted-in and can control the experience.

How interested would you be in allowing your mobile phone to automatically share your current location if this enabled the following capabilities? (%)	UK	France	Germany	US	Average
Use of free mobile applications	40	43	27	32	36
Receiving coupons to redeem in nearby stores	42	34	32	26	34
Making faster payments while on the move (for example, paying highway tolls without stopping at a toll booth)	26	25	23	22	24
Finding nearby merchants carrying product carrying products you're searching for	26	23	19	21	22
Receiving directions to nearby merchants carrying products you want to buy	23	22	14	21	20
Receiving text message alerts about sales in nearby stores	22	15	13	14	16
Receiving promotional offers or advertisements for products or services tailored to your current location	21	17	8	11	14

Source: Mobile Marketing Association and Luth Research, 2010 US; MMA and Lightspeed, 2010 for UK, FR, Ger

MMA Perspective: Asia Pacific

The APAC region has the most experience with LBS, led by Japan and Korea. But adoption has been widespread and growth forecasts, for both consumer usage and revenues derived from LBS are very impressive. Strategy Analytics (SA), a leading global organization with analysts based in Europe, Asia and the Americas, have shared their forecasts for the APAC region. Their 2011 report notes, “(we) expect the popularity of mobile search, maps, and navigation applications to drive the adoption of location based services among consumers. The growth will be underpinned by the rising installed base of GPS enabled smartphones and data plans.”

SA has forecast the growth in LBS users across the APAC driven largely by the growth and concentration of search and mobile maps.

Location Service Users (m)	2010	2011	2012	2013	2014	2015	2016	CAGR
Search Users	216.6	268.1	330.3	412.2	514.8	617.9	724.5	22.0%
Voice Guided Navigation	21.3	36.3	55.8	77.9	95.2	112.1	129.2	28.9%
Mobile Maps	74.8	133.7	203.6	280.5	361.7	448.7	530.3	31.7%
Premium Mobile Map Overlay	2.2	5.3	10.2	16.8	25.3	35.9	47.7	54.9%
Live People Tracking - Safety	1.3	1.9	2.6	3.4	4.1	4.7	5.3	22.4%
Live People Tracking - Social	5.1	10.6	23.4	45.8	72.7	102.0	133.8	66.1%
Other LBS	95.9	120.9	150.8	180.2	208.5	231.2	245.1	15.2%

Source: Strategy Analytics 2011, Asia Pacific Location Based Service Forecast

However, SA also notes that although maps are the second most adopted LBS they will actually account for only 1% of global LBS revenue and 2.8% of APAC revenue by 2016.

	2010	2011	2012	2013	2014	2015	2016	CAGR
Spend Summary (\$m)								
Location Enabled Search	37.7	113.9	208.8	325.9	470.0	633.8	756.7	46.0%
Voice Guided Navigation	495.0	546.9	571.0	543.1	493.8	462.7	429.6	-4.7%
Mobile Maps	10.8	12.5	13.4	14.0	9.4	6.6	2.8	-25.8%
Map Data Overlay	12.1	28.4	54.6	89.4	131.1	179.1	221.3	50.8%
Safety Tracking	74.4	108.9	145.0	182.9	216.0	241.1	258.6	18.9%
Other LBS	73.2	122.1	196.0	245.8	291.2	331.3	363.1	24.3%
Total	703.1	932.7	1,189.0	1,401.1	1,611.6	1,854.6	2,032.1	16.9%

Source: Strategy Analytics 2011, Asia Pacific Location Based Service Forecast

MMA Perspective: Central and Latin America

MMA members from our LATAM region should take note of the Strategy Analytics usage numbers for the region they describe as Central and Latin America (CALA). While the overall numbers are smaller than APAC, growth rates are projected to be strong, as is the revenue picture (second, below).

Location Service Users (m)	2010	2011	2012	2013	2014	2015	2016	CAGR
Search Users	42.6	60.1	78.1	93.3	107.3	120.3	134.7	17.5%
Voice Guided Navigation	4.5	7.1	9.9	15.3	20.9	26.5	32.2	35.2%
Mobile Maps	29.3	43.2	55.5	68.7	82.5	95.1	106.8	19.8%
Premium Mobile Map Overlay	0.9	1.7	2.8	4.1	5.8	7.6	9.6	40.9%
Live People Tracking - Safety	0.2	0.5	0.9	1.3	1.7	2.0	2.4	37.8%
Live People Tracking - Social	1.3	4.0	8.0	12.6	18.7	26.1	34.1	53.5%
Other LBS	6.3	11.8	19.8	28.9	37.7	44.3	48.6	32.8%

Source: Strategy Analytics 2011, Central and Latin America Location Based Service Forecast

The revenue forecasts for CALA show impressive growth potential even if a smaller base than other regions.

	2010	2011	2012	2013	2014	2015	2016	CAGR
Spend Summary (\$m)								
Location Enabled Search	0.0	0.2	0.7	2.0	4.1	7.7	12.9	129.4%
Voice Guided Navigation	171.4	149.7	128.9	100.4	92.8	102.1	114.0	-5.3%
Mobile Maps	28.8	33.0	39.0	48.6	53.0	56.4	56.6	11.4%
Map Data Overlay	5.0	9.8	15.8	22.8	30.8	39.2	45.6	36.1%
Safety Tracking	11.8	25.2	46.8	70.5	91.0	108.1	122.0	37.0%
Other LBS	0.4	1.2	3.0	6.8	12.4	18.9	25.9	86.3%
Total	217.4	219.0	234.3	251.0	284.0	332.4	377.0	11.5%

Source: Strategy Analytics 2011, Central and Latin America Location Based Service Forecast

LOCATION BASED MARKETING OPPORTUNITY

Today's smartphones, tablets and connected devices are virtually all GPS enabled thus allowing for a myriad of location oriented marketing opportunities. The types of service and marketing described in the sections below are just the beginning – the MMA will continue to monitor the situation globally and provide topical updates as they present themselves.

Types of Location Based Services:

Below are common types of Location Based Services for consumers and enterprises. Many Location Based Services today combine concepts from several of the types listed below. The examples below are described in terms of functionality. Many of them could, in fact, be realized via a variety of mobile media including downloadable applications, mobile web sites, messaging, or Interactive Voice Response (IVR).

1. **Navigation:** Provides driving, walking, or other directions; often “turn by turn”. Examples: Operator-branded navigation applications, Google Maps, Nokia's Ovi Map.
2. **Geo-fence Services:**
 - a. **Friend/family finder/tracker:** Ability to locate other trusted users in real-time (i.e. friends or family, by consent), or see where they last “checked in”, be notified when they are nearby, receive periodic alerts or alerts based on position (i.e. geo-fence). Examples: Loopt™, MyFriendGPS™, AT&T FamilyMap™ RunKeeper, and Trail Tracker (activity Tracking), Asset tracking.
 - b. **Enterprise Fleet Tracking and Timecarding:** Allows businesses to use employee and/or asset location for business purposes (i.e. verify asset is at the intended location). Example: Telenav™.
3. **Mapping, Travel and Point of Interest:** View current location on a map relative to points of interest. Examples: WHERE™, Snocator™, MapQuest™, Public Transportation Routes.
4. **Geo-tagging:** Uses location to provide additional context to a picture or message.
5. **Location Sharing:** Connect with nearby users who have chosen to expose their profile publicly. Search profiles of other users based on preferences (i.e. distance, age, gender, interest/keywords, etc.) Examples: Foursquare, Facebook Connect.
6. **Check-in Based Contest and Games:** Reward the user (typically with discounts or coupons) for visiting retailer locations and “checking in”. LBS are used to verify that the user was at or near the retailer location when checking in. Examples: MyTown™, Gowalla™, Foursquare™, Rumble™.
7. **Local Search:** The defining characteristic of effective mobile local search is the ability to match location with user–specified intent thus enabling the user to search and discover what is nearby. Examples: Poynt, WHERE™, Yelp™.
8. **Local/Hyperlocal Content:** A contextual experience based on a specific locale. For mobile local search, the user's location and specified intent are the most significant components. Examples: Local weather conditions, local sports scores, in-store services.

Types of Location Based Marketing

Marketers have many choices to location enable a campaign based on campaign objectives. They include:

1. **Geo-targeted Text and Display Advertising:** The paid placement of a promotion or sponsorship message within mobile media that is integrated with LBS. Two types of targeting are common:
 - a. **User Targeting:** Advertisers who wish to only reach users in a certain geographic area can use this type of targeting.
 - b. **Message Targeting:** Presenting a different message to users based on their location.
2. **Embedded Icons:** (Sponsored embedded advertising) the sponsorship deals can be map-embedded or on-the-page/in-app. Sponsored embedded advertising that displays without a search term but is based on end-user's interests and / or brand affinity. Icons or logos displayed in maps or augmented reality to help user determine relevant proximity/location.
3. **Search (aka: Local Directory Advertising):** Advertising for listings of local merchant retailers. For example, CitySearch, Dex, YellowPages all fit in this category. Generally these campaigns will include some form of user targeting to show listings only to users in a relevant geographic area.
4. **Location Triggered Notifications:** Uses proximity information (Wi-Fi, Bluetooth, GPS or Network-based) to provide App Alerts or Messaging based on user preferences and opt-ins. These services can be automated (vs. requiring a check-in or app) and can run on both smart and feature phones. Once opted-in, alerts are delivered whenever a consumer is nearby a store, and can be tailored to a specific location (e.g. incorporating address or directions) and an offer specific to that nearby store.
5. **Location Branded Application:** The usage of LBS technology to enhance brand-owned mobile media services. Media brands are the most ardent supporters of these apps.
6. **Check-in Based Contests and Games:** Reward the user (typically with discounts or coupons) for visiting retailer locations and “checking in”. LBS are used to verify that the consumer was at or near the retailer location at the time the consumer is checking in.
7. **Click-to-X Routing:** Routing either calls, data from broad campaigns to local call centers or localized information. For example a nationwide auto dealer might use LBS to route calls from a nationwide click-to-call campaign to the nearest local auto dealer based upon the consumer’s precise location.

Examples of Location Based Marketing

I. Geo-targeted Text and Display Advertising: Blue Moon

Blue Moon worked with HipCricket to launch a media campaign advertising its LBS effort.

BLUE MOON BREWING Co.

Your Gate Is Hard Enough to Find.
We Make Finding a Blue Moon® Easy.

① Text* TRAVEL to 28130.

② Get a text telling you where to enjoy a Blue Moon at select airports.

③ Take a break from your travels.

Artfully Crafted.
Discover more on Facebook.com/BlueMoon.

*Msg & data rates may apply. Must be 21 or older to participate. No purchase required. For full terms and conditions, visit: <http://mctstore.hipcricket.com/standard-termsEandP.asp>.

Taste Responsibly
©2011 BLUE MOON BREWING COMPANY, GOLDEN, CO
BELGIAN WHITE BELGIAN-STYLE WHEAT ALE

28130

Me: Travel
10:59, Aug 1

28130: BM: Thanks 4 using Blue Moon on the Fly. You allowed use of your location to find Blue Moon at select airports. Msg&Data rates may apply. Reply STOP 2 optout.
11:00, Aug 1

Type to compose Send

Source: HipCricket, 2011

a) User Targeting: Consumers were encouraged to opt-into Blue Moon LBS mobile marketing campaign by texting TRAVEL to 28130.

b) Message Targeting Example: When consumers arrive at an airport they automatically receive a text message telling them in which restaurants Blue Moon beer is served.

2. Embedded Icons Example: MapQuest

User selects brand preference to display on maps while using for directions or search.



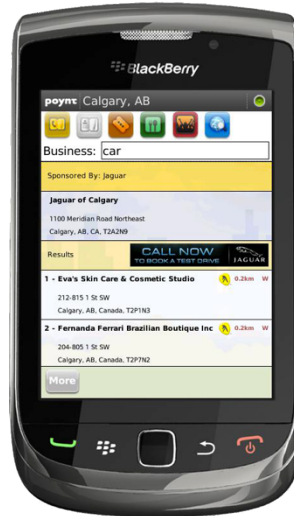
Source: MapQuest, Inc.

Advertising icons displayed on Map.

Banner ads appear in Search results.

3. Search Listing Example: Poynt

A user searching for car near their current location returns results by distance. Sponsored listings may be included in the listing.



Source: Poynt, Corporation

4. Location Triggered Notification Example:

A local coffee shop offers a limited time promotion for opted-in customers who are nearby. Opted-in customers, who are identified within walking distance, are sent an SMS message with an offer for a free cup of coffee.



Source: www.singtelimedia.com

Example, Converse

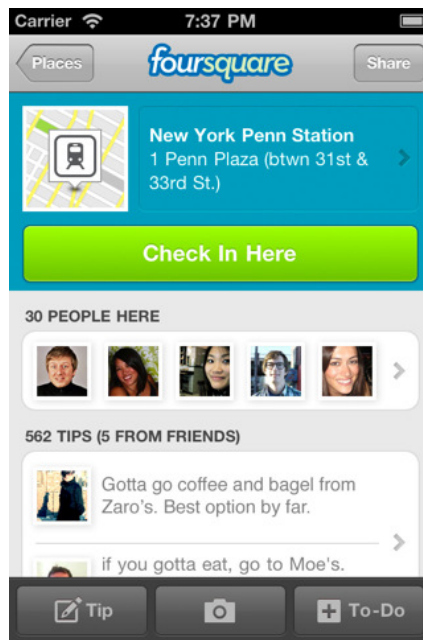
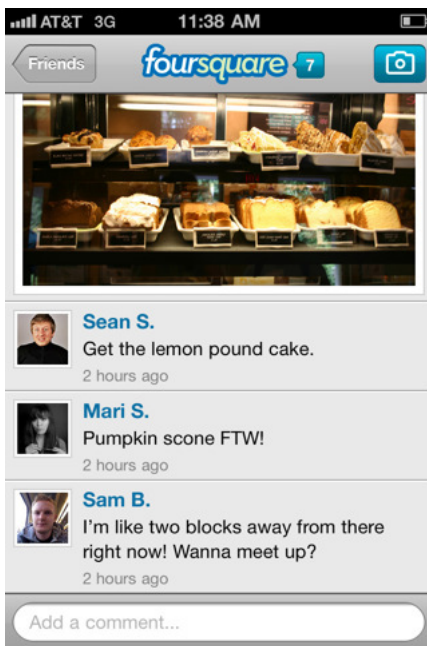
5. Location Branded Application Example – The Weather Channel



The Weather Channel apps consistently boast some of the largest downloads numbers, underscoring the universal interest in localized weather info.

Source: The Weather Channel

6. Check-in Based Contests and Games Example: Foursquare



Foursquare has emerged as the leading, but by no means the only, check-in service, offering specials, badges and games for their millions of users.

Source: Foursquare

7. Click to Locate - BMW Canada Dealership

The find nearest retailer functionality enables users to find the nearest Retailer relevant to user's location. Results include getting directions, and interactive Google maps features. The parameter based user input functionality allows users to find the nearest Retailer by Name, Region or Postal Code.



Source: iconmobile 2011

4. Business Considerations

Before getting started in designing and planning a Location Based Marketing application, service, or campaign, there are a number of very important questions to answer to first understand the business goals and define campaign objectives. In considering the following points, marketers will be able to determine what Location Based Marketing approach best meets their needs.

Questions to Consider For Mobile Marketing Campaign Objectives:

- What is the business goal of my campaign? Drive foot traffic to brick-and-mortar retailers? Increase brand awareness? Generate leads/calls? Improve Click-Through-Rate or other engagement statistics over traditional mobile marketing?
- How will I measure the success of this campaign?
- Reach: How can this program reach the largest number of users in the target market?
 - Mobile Media Channel: Do I have a media preference, and why? For example, do I intend to use SMS, Mobile Web, Downloadable apps, IVR, or some combination to execute this campaign? What factors drive my preference?
- Do I have an existing list of opted-in users from SMS or email marketing campaigns?
- Targeted vs. Local vs. Am I trying to reach all customers within a given geography? Am I interested in using location to target users in a given area?
- Am I trying to reach only customers who use a certain application or type of application?
- Am I trying to reach users equally across all devices, or do I want to target certain devices or classes of devices (i.e. smartphones)?
- How will I obtain location data, and how accurate does it need to be? Do I need to know precisely where this person is, or will knowing what city they are in suffice? What happens for users when I cannot obtain their location?
- Am I trying to reach all customers across all carriers, how important is ubiquitous reach to my campaign?
- Do I have existing mobile channels (i.e. a mobile web site) I can use to promote my campaign?
- Do I have the resources to develop, build, and promote my own downloadable application? If so, which device platforms are my priority (i.e. iPhone, Android, RIM, J2ME, BREW, Palm (webOS), etc.)?
- What costs can my campaign support? SMS messages, display advertising, applications, and carrier location data all have different cost basis. Which ones best align with my budget and campaign goals?

Location Based Marketing Approach Considerations

Campaign Goal	Effective LBM Types
Drive foot traffic to brick-and-mortar retailers	<ul style="list-style-type: none"> ○ Geo-targeted Text and Display Advertising ○ Embedded icons ○ Search ○ Location Triggered Notifications ○ Check-in based Contests and Games ○ Point of Interest Finder
Increase brand awareness	<ul style="list-style-type: none"> ○ Geo-targeted Text and Display Advertising ○ Embedded icons ○ Location Branded Application ○ Location Triggered Notifications ○ Point of Interest Finder
Generate leads/calls	<ul style="list-style-type: none"> ○ Geo-targeted Text and Display Advertising ○ Embedded icons ○ Search ○ Location Triggered Notifications ○ Check-in based Contests and Games ○ Click-to-X Routing ○ Point of Interest Finder
Improve Click-Through-Rate or other engagement statistics over traditional mobile marketing	<ul style="list-style-type: none"> ○ Geo-targeted Text and Display Advertising ○ Search ○ Location Triggered Notifications ○ Check-in based Contests and Games ○ Point of Interest Finder
Broadcast to local audience	<p>There are two approaches to consider within this marketing use case:</p> <ol style="list-style-type: none"> 1. The sending out of a targeted broadcast message to a local audience such as customers shopping in 'Outdoor World' for example – offering them 10% off their purchase that day 2. The sending out of a non-targeted broadcast message to a local audience such as customers shopping in a mall – offering them a deal such as BOGO at Cinnabon

Considerations in Technology Selection

The following are the considerations in selecting the technology associated with a location based marketing campaign:

Cost: In some cases, there is a cost to the publisher associated with obtaining location data. Often these costs are per-transaction (i.e. one location “lookup” or “dip”). Sometimes the costs are on a per-subscriber, per month basis. In other cases (i.e. a downloadable application on smartphones), location data is free.

- **Reach:** Reach reflects the number of consumers (or devices) which are addressed by a given LBS solution. For example, if a given campaign only runs on Bluetooth, it’s “reach” is limited to consumers with an active Bluetooth connection enabled.
- **Location Identification Yield:** Yield represents the percentage of all location requests that are fulfilled. No LBS provider or system is perfect. For example, GPS or A-GPS will not work indoors. A 60% yield means, 60% of all LBS requests were fulfilled.

Latency: Latency is the amount of time it takes to fulfill a request. For example a high accuracy location request, using GPS, could take sixty seconds or more to be fulfilled. Whereas, a low accuracy location request using Wi-Fi or Cell ID might be much faster.

Accuracy: Accuracy measurement reflects a degree of uncertainty with the location data provided, and is often expressed in Meters (M).

5. Privacy Considerations: Location Identification and Usage

Consumers are sensitive to having their information collected and used by marketers. As a trade association, our focus is on growing the mobile marketing and mobile advertising markets; to reach this goal we need to ensure that consumers understand the choices available to them when it comes to privacy. The following are general considerations:

Notification: It is appropriate to notify the end-user about how their location information will be used, disclosed and protected so that a potential LBS user can make an informed decision whether or not to use the service or authorize the disclosure. This notice should be optimized for display within a mobile device so it is easy for end-users to navigate and read.

Opt-in: It is appropriate to obtain user consent before initiating a precise location fix or disclosing precise location information to provide requested services or sharing such precise location information with third parties.

Messaging, Bluetooth, In-App and Mobile-web marketing campaigns should be designed in such a way that the user's consent and **explicit** opt-in is obtained before delivering any alerts, marketing or content to the user.

Opt-out: It is appropriate to allow end-users to revoke their prior consent to the:

- Collection of precise location information by the marketer, or;
- Disclosure of precise location information to all or specified third parties.

Security: Reasonable security measures should be used to ensure that a user's information is secure and not shared with non-affiliated third-parties. The need for effective security measures is heightened with respect to products and services targeted to children.

Data Retention: It is appropriate to limit the data retention of consumer data to as long as that data is commercially useful ensuring privacy and security.

Relevance: In exchange for consenting to provide precise or directly providing geographic location information, users should be provided with relevant, useful information.

6. Next Steps

Location Based Marketing and LBS continue to evolve as other types of mobile services gain adoption by consumers. As Social becomes more integrated into mobile marketing efforts, we will see greater integration of social and LBS, especially as Facebook integrates their services with location⁴. With this, advertising is expected to follow providing mobile marketers additional opportunities to provide more relevant marketing based not only on location but also on a consumer's social graph. The combination of social and geographic location data will raise privacy concerns.

The MMA will continue to provide members educational information and guidelines around location based advertising, and integration LBS into other mobile services as these new services continue to gain consumer adoption.

⁴ Foresttor Research 2011 Mobile Trends by Thomas Husson and Julie A. Ask for Consumer Product Strategy Professionals. Januray 24, 2011.

APPENDIX I: Glossary of Terms

Marketing: Activities aimed at acquiring, retaining, or communicating with customers.

Advertising: Activities aimed at acquiring new customers or increasing product/brand awareness. A sub-set of Marketing.

IVR: Interactive Voice Response (IVR) is a technology that allows a computer to detect voice and keypad inputs.

Inventory: The available media and impressions for the purpose of advertising.

Reach: The unique users for a given campaign.

Ad Network: Ad networks sit between advertisers and publishers, as brokers who sell the available ad inventory to advertisers who wish to promote their message. Furthermore, they add on layers of targeting (e.g. using geography) and delivery to advertisers and publishers in order to deliver advertising messages appropriately.

Ad Selection/Serving: The process performed by an ad server and/or ad network of determining which advertisement to serve, for a given ad request from a publisher.

Targeting Criteria: The available information that can be used to deliver a specific marketing message to a user. For example, if income, gender, and location are targeting criteria available, a marketer could display a specific message to users with income greater than \$50K, who are female, in the State of California.

Geo-fence: Geo-fencing technology refers to the ability to create a boundary around a specified location or point on a map. Geo-fencing, as it applies to mobile phones, is the device's ability to receive automatic alerts or notifications when entering, leaving or moving within a specified geographic area. Most if not all, smartphone devices in the market today have GPS technology embedded into the device, creating the ability to dynamically generate a geo-fence on a user's device. The user can also manually set their location.

For example: a parent could use a Family Locator service to create a geo-fence around her child's school, and receive an alert via SMS or email any time the child's device enters or leaves the geo-fence.

Contributors:

With the combined efforts of the MMA's Global Mobile Advertising Committee (in 2010 and 2011) and the LBS Task Force of the MMA Privacy & Advocacy Committee (in 2011) the following companies provided contribution to this whitepaper:

Acuity	Mocean Mobile
Aegis Mobile	Navteq
Air2Web	Object FX
AT&T	Openwave
Cha Cha Search	Poynt
Chapell & Associates	Smiley Media
Collider Media, Inc.	Sprint
Comverse	Syniverse
Future of Privacy Forum	The Weather Channel
HipCricket	TRUSTe
Iconmobile	Unilever
Inmar	Useful Networks
Loc-Aid	Velti
MapQuest	Verizon Wireless
Microsoft	Where
Millennial Media	Yahoo!
Mobile Dreams Factory	

This White Paper has been created by members of the Mobile Marketing Association and intended to provide insight into an emerging area of focus. It should not be considered MMA policy nor is there a guarantee that any ideas contained here will be included in future MMA Guidelines, Best Practices and Standards.