



# **Everything in Its Place:**

Location, Logistics and the Future of Local Competition





## **Contents**

Executive Summary	1
Evolution in Logistics Creates Revolution in Markets	
The On-Demand and Mobile Economic Opportunity	
How Big Can Asset Tracking Get?	
Conclusion: Connection Counts	12
About BIA/Kelsey	16
About BIA/Kelsey Sponsored Research	16
About MapQuest	17

## **Figures**

Figure 1: Location-Targeted vs. Non-Location-Targeted Mobile Advertising Growth, 2015-2020	7
Figure 2: Addressable On-Demand Household Revenues, 2015-2020	
Figure 3: Mobile Advertising Revenue Changes by Percentage 2015-2020	10



"If 'the market' is the world's most powerful force, supply chains bring markets to life. Supply chains and connectivity, not sovereignty and borders, are the optimizing principles of humanity in the 21st century."

Parag Khanna, "Connectography —
Mapping the Future of Global Civilization"

## **Executive Summary**

Supply chain management is as old as the market itself, having begun with handwritten or memorized inventories carried along the Silk Road and other trade routes. Since the turn of the century, however, the idea of static inventories has disappeared as digital supply chain management has transformed the enterprise into efficient just-in-time operations that seek to minimize waste while improving cash flow.

After growing to \$9.9 billion in 2014 revenues, according to enterprise technology analyst firm Gartner Inc.<sup>i</sup>, supply chain management technology has begun to reach into the local market. Small businesses can participate for the first time now that cloud-hosted assettracking capabilities are becoming available. Its profound impact will be felt in every business, leaving those that decide to remain unconnected at a serious disadvantage.

This paper examines how asset-tracking services enable marketing and logistics professionals to collaborate to develop increasingly responsive local campaigns based on local delivery of products and services.

In this white paper, BIA/Kelsey explores how asset-tracking services, which map a market, will require marketing and logistics professionals to collaborate to develop increasingly responsive local campaigns based on local delivery of products and services. Cloud-hosted databases that track product inventory as it moves through the supply chain, service team location and capabilities, and growing amounts of contextual information about the transaction are poised to make supply chain insights available to every company, not only the largest enterprise.



#### In this paper, we explore:



How asset tracking enables **improved customer experience** and increased revenues,



The **size of economic opportunity** created by asset-tracking services,



**Improving cash flow** through active management and analysis of inventory,



How to use asset tracking to **provide previously impractical local on-demand services**,



The **technical and business considerations** for a company considering asset-tracking technology.

Supply chain innovation disrupts existing transactions and provides new opportunities to create value for customers. It improves margins by moving inventory and services to customers when and where they want it.

Asset tracking makes new product and service combinations efficient, allowing any business to improve its service differentiation and product margins.

#### To unlock trillions in disrupted and new local revenues, businesses must:

- Develop a geo-location and asset-tracking database that locates product inventory,
- Connect physical product with an expert available to deliver and support it,
- Determine where and when the customer wants to receive the product or service.

When applied to human services, such as medical treatment, massage or professional advice, among many other services migrating to on-demand models, scheduling asset tracking creates local efficiencies as profound as the global logistics transformation of the past 40 years in the enterprise.

Asset tracking creates local efficiencies as profound as the global logistics transformation of the past 40 years in the enterprise.

In the emerging local on-demand economy, for example, BIA/Kelsey projects that the ability to efficiently provision a local service, such as food delivery, dog walking or medical care, has the potential to displace more than \$500 billion in existing household service revenues in 2016. Additionally, supply chain optimization is poised to create up to \$3.1 trillion in new U.S. gross domestic product by bringing into the formal economy a variety of low-wage services aimed at the household, such as housecleaning, child and



elder care, food preparation, and shopping. Women are likely to define the on-demand economy, both as customers and service providers, creating the basis for wage parity with male workers. Location-based services, as explained below, are the key to unlocking this massive logistics opportunity.

## **Evolution in Logistics Creates Revolution in Markets**

After centuries of storing commodity goods near large markets, recently introduced digital supply chain strategies emphasize the positioning of inventory for maximum value, moving it to improve margins instead of marking down inventory to clear the shelves. Companies such as Amazon and McDonald's have mastered inventory with digital supply chain data, tracking packages to the doorstep or ensuring that each burger has its bun.

Today, products and services are combined to create customer experience in the last mile, near where the consumer is ready to buy now. Work itself will shortly be provisioned the same way, delivered on demand in the local market.

During the first generation of logistics evolution, enterprise scale was necessary to support investments in supply chain management.

The supply chain management industry has been dominated by enterprise software developers SAP and Oracle, which accounted for 40.4 percent of industry revenues in 2015, according to Gartner. Supply chain tools allowed major global brands to increase their inventory turns substantially, making high-technology companies more profitable. In fast-food giant McDonald's case, the company achieves 157.3 turns of inventory per year that occur once every 2.3 days.

Local businesses, including franchisees, often sat outside the enterprise logistics system, receiving passively what enterprise brand and product managers decided they might need based on local market projections. With the advent of cloud services hosted by firms specializing in logistics, asset tracking and mapping, small businesses can tap into the power of both existing enterprise supply chains and their own unique local expertise and service capability.

Uber made local tracking of resources — drivers and cars, along with the riders who want to be driven from place to place — a front-page story globally. The company made finding a ride unimpeachably easy, resulting in a rapid move away from the old manually dispatched taxicab industry, which became obsolete in less than half a decade.



The core technology behind Uber tracks drivers, who sign on to the app to signal they are available to take riders. The drivers and their cars become live assets in Uber's inventory, and the service immediately begins searching for riders near the available car. Uber has invested heavily in routing algorithms to optimize trips, as well as machine learning to anticipate changes in demand, but what drives it is asset tracking. Each driver, car and rider is a resource to be matched by the Uber service.

Uber can only do so much, however, and will leave vast market opportunities for logistics management unaddressed. It has focused on eliminating drivers from its cost equation and expanding into a variety of delivery categories, leaving many markets for companies that invest in specialized recruitment, engagement and marketing necessary to dominate well-defined segments.

Location is the value unit for platform businesses like Uber. Value units allow producers and consumers of a service to interact in ways that are mutually beneficial. Asset-tracking services are the central features of platform businesses that manage supply and demand in real time. They connect information about customers and suppliers, their proximity, and the profitability of every transaction, allowing companies to apply marketing practices to unique product-and-service combinations at scale in local and global markets.

Uber is an example of a platform business, which "uses technology to connect people, organizations, and resources in an interactive ecosystem in which amazing

#### **BUSINESS DECODER**

#### What's an API & How Does Asset Management Work?

Application programming interfaces (APIs) allow organizations to tap into complex functionality and vast data pools to augment their applications and services.

An API, depending on its complexity, can perform a wide or narrow range of functions. APIs are much simpler to understand than they are to build. Here is what a business decision maker needs to know.

Coders assemble programs using libraries of functionality that provide prepackaged capabilities to perform specific work on data.

For example, the code may need to multiply a number by pi. Rather than write a line of code to perform the multiplication from scratch, coders can use thousands of such functions provided by a programming language to speed development.

They pass the number to be multiplied to a multiply-by-pi function and get back the result. So, if the number sent is "2," the result returned will be 6.28.

The benefits of this approach become clear when thousands or millions of data points need to be run through a function, especially one that requires access to large amounts of data to provide the correct response.

(Continued on page 15)



amounts of value can be created and exchanged," according to "Platform Revolution: How Networked Markets Are Transforming the Economy — and How to Make Them Work for You" authors Sangeet Paul Choudary, Marshall Van Alstyne and Geoffrey Parker<sup>ii</sup>.

Asset-tracking services are the central feature of platform businesses. They connect information about customers and suppliers, their proximity, and the profitability of every transaction, allowing companies to apply marketing practices to unique product-and-service combinations at scale in local and global markets.

These logistics advances are also changing work. Now that businesses are able to analyze productivity in real time with granular insight into when value is created for the customer, management wants to reduce the use of staff to the bare minimum. The on-demand or "gig" economy is the product of the introduction of advanced logistics as well. Human resources will be managed like physical assets, and businesses of every size will seek to minimize their employee and inventory costs using these tools.

## The On-Demand and Mobile Economic Opportunity

As of February 2016, more than \$17.8 billion in venture capital had flowed into ondemand companies globally, according to investment tracking firm CB Insights. Ondemand companies use asset tracking to engage labor, treating it as a fungible commodity. These companies frequently build their own end-to-end systems to track assets, manage their business, and deliver marketing support through website and apps.

BIA/Kelsey estimates that U.S. on-demand companies drove \$22 billion in consumer transactions in 2015, taking approximately 25 percent as service fees, or \$5.5 billion in revenues. More than half that amount went to Uber alone, but the growth of reported use of on-demand services by consumers shows the business model is being widely adopted.

As "How We Got to Now: Six Innovations That Made the Modern World" author and PBS television host Stephen Johnson recently explained at the BIA/Kelsey ENGAGE Conference, a common database of geographic and location-specific information is necessary to enable the next generation of services<sup>iii</sup>: "There is going to need to

BIA/Kelsey estimates that U.S. on-demand companies drove \$22 billion in consumer transactions in 2015.



be, and I think we will consolidate around one, a virtual model of the world in which the streets and information about them will be digitized."

Asset tracking has matured as a practice and is increasingly being built into mapping and cloud database services. This industry initially focused on satellite tracking of large assets, such as tractor-trailer trucking fleets and distribution locations. The advent of Wi-Fi location technology for use inside buildings, smartphones and the Internet of Things (IoT) opens many new channels for logistics data for use in matching supply with demand.

A new generation of location services is now available to track a much broader range of assets, including mobile handset or tracking hardware such as beacons embedded in ID cards; inventory and assets of many sizes, shapes and complexity; and the intention of consumers captured in search queries. As desktop publishing followed the printing press, and web publishing displaced desktop publishing, these maturing logistics systems have made asset tracking available to businesses of any size.

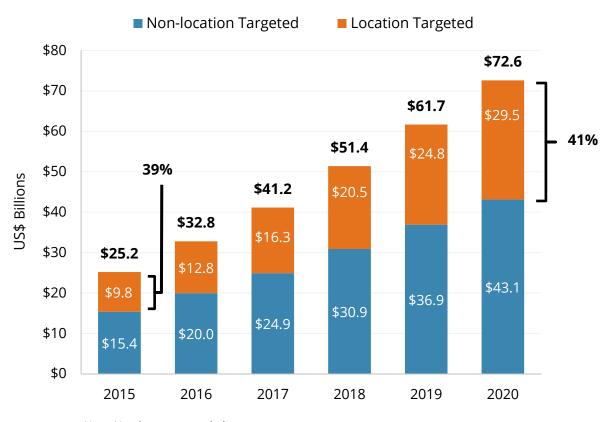
Based on the well-established trajectory of digital adoption, BIA/Kelsey expects asset tracking to be widespread in business. But the tools will grow more specialized and will frequently be outsourced instead of relying on bespoke in-house databases. We expect local businesses, as well as brand competitors addressing local markets, to emphasize their contributions to local transactions rather than invest in their own asset-tracking services.

Consequently, the local market, with all its intricacies, will be turned inside out in the next decade, as small-business and brand managers alike embrace IoT and the idea that products and services can be combined locally to create unprecedented customer intimacy and engagement. Small service fleets can be deployed using cloud algorithms to optimize schedules. Health-care firms, such as Heal and Doctor On Demand, can schedule and deliver care in the home, at fees far below office visits, because they are able to match patients with providers using automation.

Evidence for the transition from traditional supply chain management is still emerging, because several technical trends converged to create the new logistics practice: GPS combined with indoor use of Wi-Fi signals to get precise locations, including altitude, can be used to identify the floor of a building where a customer may be located; mapping services expanded integration with databases; and machine learning matured to address specialized problems, such as route optimization.



Figure 1: Location-Targeted vs. Non-Location-Targeted Mobile Advertising Growth, 2015-2020



Note: Numbers are rounded.

Source: U.S. Local Media Forecast 2016 – Spring Update

Consumers, however, are racing ahead. They use their mobile phones to research and make purchases. As a result, spending on location-targeted mobile advertising is soaring.

BIA/Kelsey projects that local location-targeted advertising will generate \$29.5 billion in 2020 revenues, accounting for 40.6 percent of total local mobile advertising. Consumers are on the move, and they want services that will deliver what they need, when they want it, wherever they are.



## **How Big Can Asset Tracking Get?**

The rise of logistics as a key enterprise and small-business competence is transforming every industry as people and assets can be managed far more efficiently. In addition to speeding inventory turnover, emerging logistics networks will obsolete of exercise of trying to anticipate how much supply will be needed as part of a lean manufacturing and distribution strategy.

BIA/Kelsey uses the term "local on-demand economy" to describe a wholesale change in local business models that have begun to take hold in the U.S. and global economy simultaneously on the shoulders of mature logistics platforms. Using tracked assets, human resources and market conditions, the future of local competition is assembling customer experience on demand.

In fact, it is possible to imagine businesses that thrive on customer loyalty to a particular supply chain, because it is able to deliver products or services others cannot. Uber is seeking this kind of leverage with its brand, segmenting it into Uber Eats to address the food delivery category and Uber Business for the business traveler. Marketers considering asset tracking should also recognize the opportunity to collaborate with IT teams to use geo-location information about customers to improve segmentation of the audience and targeting offers.

Now that a supply chain can be exposed to the consumer, the companies and practices included in the production and delivery of products or services become visible contributors to the consumer's world.

Transparency is moving upstream to reveal every step in production. Now that a supply chain can be exposed to the consumer, the companies and practices included in the production and delivery of products or services become visible contributors to the consumer's world.

The idea of loyalty to a supply chain appears bizarre today, but history shows that the reliance on static supply inventory was necessary because of the lack of real-time communication. A supplier can differentiate based on social and ecological goals, to name just two dimensions of value that can be highlighted during customer engagement to improve consumers' confidence in purchases and advocacy on behalf of the provider.



(US\$ Billions) 2020 2015 \$173.2 ..Travel related to unpaid household work \$53.9 ....Grocery shopping \$205.4 ..Purchasing goods and services \$161.5 ...Caring for and helping household children \$185.1 ... Caring for and helping household... \$110.1 ....Maintenance and repair \$119.1 ....Lawn and garden care \$71.4 ....Household management \$110.2 ....Laundry and sewing \$184.8 ....Cleaning \$270.5 ....Food and drink preparation \$924.5 ..Household activities \$1,489.2 Unpaid household work \$0 \$500 \$1,000 \$1,500 \$2,000

Figure 2: Addressable On-Demand Household Revenues, 2015-2020

Source: U.S. Census; BIA/Kelsey

In "Connectography — Mapping the Future of Global Civilization," author Parag Khanna studies the rise of logistics networks and supply chains' influence on global competitiveness and geopolitics. Khanna describes supply chains as "salvation" from economic isolation, whether across national borders or within nations, where regions can differentiate based on better integration into global supply lines. Connections within a region are ultimately most important, because they raise barriers against flight of capital based on trust and established quality when other locales offer lower costs.

In daily life, the impact of supply chain maturity will be felt in the household through in-home, out-of-home, and through systems that help balance life and work responsibilities. BIA/Kelsey projects that on-demand and local home services could





see more than \$500 billion in transaction revenues shift from traditional providers to logistics-enabled competitors by 2020, up from just \$22 billion in 2015. Using well-established hourly measures of paid and unpaid household labor from the U.S. Census American Time Use Survey, and adjusting the addressable market based on reported use and geographic availability of on-demand services such as housecleaning and driving ("mobility services"), we project that in 2016, \$515 billion in household labor can be displaced by on-demand work.

During 2015 adoption of on-demand services represented only 4.5 percent of the total household services market. However, the industry is growing more than 100 percent annually, at a pace faster than the adoption of online commerce, which only reached 10 percent market penetration in 2016, according to Kleiner Perkins Caufield Byers partner Mary Meeker's influential Internet Trends report<sup>iv</sup>.

Projected changes in mobile marketing expenditures point to a rapid transition to logistics-aware services, which will change the nature of online offers over the next decade. Manufacturing will become more precise, reducing the production and storage costs associated with excess inventory. Additionally, mobile users will become increasingly focused on offers preconfigured to answer their immediate or long-term needs. Marketing as a practice will need to factor in the management of assets to create unique customer offers that deliver personalized product and service experience.

Figure 3: Mobile Advertising Revenue Changes, by Percentage, 2015-2020

Media	2015	2016	2017	2018	2019	2020	CAGR (2015-2020)
Location-Targeted Mobile	40.2%	30.7%	26.6%	26.0%	21.1%	18.9%	24.6%
Mobile Traditional Display	33.0%	32.4%	30.1%	28.2%	25.8%	24.0%	28.1%
Mobile Search	32.4%	21.8%	16.5%	16.8%	12.9%	10.3%	15.6%
Messaging	12.0%	50.0%	110.0%	100.0%	91.3%	77.8%	84.6%
Mobile Traditional Video*	63.7%	59.3%	37.6%	26.3%	17.6%	14.2%	30.0%
Mobile Native/Social	84.2%	52.7%	46.4%	40.8%	28.3%	23.3%	37.9%
Total Local Adv.	0.1%	4.5%	2.4%	5.1%	3.4%	5.7%	4.2%
GDP	3.5%	4.2%	4.5%	4.6%	4.8%	5.0%	4.6%

<sup>\*</sup>Includes traditional video such as in-stream pre-roll ads on YouTube. Does not include natively produced and placed in-feed video in social media, such as Facebook news feed ads. Videos in the latter category are measured separately under Native/Social.

Source: U.S. Local Media Forecast 2016 – Spring Update



In the household services space, which consists of both paid and unpaid work performed in the home and for the family, the potential for on-demand services is tightly bound to the level of convenience delivered by logistics systems.

Matching a local cook to a community, for example, as Oakland, Calif.-based ondemand start-up Josephine has begun to do in both affluent and poor Bay Area neighborhoods, opens new earning opportunities that are unconnected with the traditional job. The logistics system serves as the organizational backbone, allowing most of the transaction to be planned automatically, and individuals can work serving their community in a way that fits into their lives appropriately.

Logistics insight with advertising targeting capabilities also opens new paths to customer engagement and improved margins for small and medium-sized businesses (SMBs). Global brands seeking to present their products and services in intimate customer relationships are starting to use last-mile local partnerships to make their products available in different ways.

The automotive industry is well on the way to provisioning mobility rather than selling automobile units, for instance. With distributed logistics systems in place, the utilization of a car as an asset becomes highly manageable, and an asset that consumers used to buy and store in a garage when not in use can be deployed round the clock to earn money. BMW, Mercedes, Ford and other car makers are now considering how to retain ownership of a vehicle while increasing its utilization from around 2 percent of the day, on average, to reap ongoing profit from delivering rides throughout the day.

Knowing the buyer's location and intentions, whether it is to get across town or to have a hamburger delivered, provides many opportunities to segment audiences demographically.

This also points to a related feature of asset tracking based on geography: Knowing the buyer's location and intentions, whether it is to get across town or to have a hamburger delivered, provides many opportunities to segment audiences demographically, serve up complementary offers and upsells, as well as negotiate based on price, timeframe for delivery or other factors that affect the customer's expectations and ultimate satisfaction.

By linking their logistics insights, brands and local retailers can collaborate to create efficiencies throughout the supply chain. From segmenting ad messages based on locality and demographic characteristics to using dynamic pricing to move inventory, logistics-powered marketing sets a new bar for business responsiveness to customer needs.



#### **Conclusion: Connection Counts**

Asset-tracking systems can be integrated into many processes within a company, from inventory and production planning, capacity planning, and marketing campaigns to reduce inventory risk and increase sales. Asset tracking combined with marketing analytic tools is the new mechanism for customization of offers. Retailers, service companies and logistics firms seeking an advantage in the emerging local ondemand marketplace must make investments in supply chain connectivity and transparency to encourage customer engagement.

Asset tracking is essential to offer flexibility, enabling merchants to combine products based on price and availability, how quickly a service visit or delivery can be scheduled, or other factors.

Business and technical decision makers considering asset tracking should weigh their choices based on the ease of integration with a cloud service using application programming interfaces (APIs) and the channels where geolocation services make the biggest impact on customer buying decisions. Mobile devices are the most powerful channel for asset-tracking tools, because of mobile consumers' frequent reliance on their phones when shopping.

Asset tracking is essential to offer flexibility, enabling merchants to combine products based on price and availability, how quickly a service visit or delivery can be scheduled, or other factors.

Because location-based services that support asset tracking can be purchased and integrated from cloud service providers, such as MapQuest, BIA/Kelsey predicts the emergence of a few key competitors in this space.

Their focus on the cartographic, GPS and Wi-Fi location accuracy will lower the barriers to using logistics services in every facet of local and global product marketing. (See sidebar, <u>Business Decoder: What's an API and How Does Asset Management Work?</u>) The MapQuest location-based service provides tools that when used in combination with other performance data can support a variety of assettracking use cases that can facilitate top- and bottom-line value.

Delivering a customized purchase option, especially when the offer is personalized, can be included to raise customer satisfaction with the proposed offer. A June 2015 VentureBeat survey of 506 marketers found that 38 percent relied on personalization to increase active prospects, 24 percent said it raises conversion rates, and 16 percent said it delivers better qualified leads.

Copyright © BIA/Kelsey 2016



Insights into supply chains, the customer's preferences and the condition of local markets, such as understanding inventories available conveniently to the customer and what kind of services will add the most value to a transaction, are poised to transform marketing and work styles. The \$515 billion opportunity in 2016 local household services revenues is only the peak of the iceberg, most of which is still invisible to unconnected companies, and is representative of a spreading practice of assembling business value on the fly.

#### **Asset-tracking services enable:**



**Insight into markets and product design**: Using geo-location services, marketers can better predict what features to promote to specific customers and diagnose product performance post-sale to provide customer feedback.



**Segment and target** advertising and promotional offers based on location and demographic characteristics, as well as using customer preferences in real time to select and present offers.



**Offline-to-online attribution**: Location technology combined with marketing automation tools can bridge the gap between digital offers and offline transactions. For example, a mobile phone user who receives a coupon can be linked to the physical location the coupon was used.



**Advertising optimization**: In addition to identifying audiences, geolocation data are a valuable tool for validating performance of, and return on investment from, campaigns.



**Growing internal business management optimization**, from fleet deployment and utilization to reducing overhead by applying assets only when they produce a favorable result, whether higher margins or improved customer satisfaction.

With mobile data use soaring, consumers now expect their location to be factored into their purchase decisions. Asset-tracking systems are an emerging layer in the SMB category that will enable local participation in global economic networks on the scale the enterprise has enjoyed since the introduction of the Internet in the 1980s. Likewise, enterprise marketers will be able to integrate with local businesses to improve customer engagement.

Copyright © BIA/Kelsey 2016





The full economic circle is now computerized. From customer to manufacturer and raw materials providers, all participants in a transaction are wired into a global network that will transform the local consumer experience and work patterns.

While simplified, this summary of the MapQuest Observer asset-tracking service suggests many potential uses, such as:



**Observing team members** or fleet drivers of delivery vehicles or service providers **in real time** to allow for optimization of time use and profitability;



Locating a truck driver and rerouting him or her to another customer location or, in retail, designating inventory for sale online with direct delivery when shoppers are not buying at the store;



**Segmenting** mobile app users based on their device location, **by activities**, **region**, **frequency of engagement and location** relative to physical stores;



**Scheduling available drivers to deliver services** in on-demand and local franchise, owned-outlet or third-party retailer delivery, among others.

APIs provide easy and affordable access to data required by logistics management tools. These capabilities are just reaching the local market, where they will have tremendous impact in the marketing lifecycle and configuration of retail and service organizations.



#### **BUSINESS DECODER**

(Continued from page 4)

Coders can focus on what they are building and hand off this repetitive work to a small program that specializes in doing something such as multiplying by pi. Over the course of time, programming languages have accumulated hundreds of thousands of such functions as programmers added new capabilities and shared them with the coder community.

An API works essentially the same way. It is a function that returns an expected result but does not reside on the computer running an application. Instead, it exists on an endpoint of a web or other type of server. For example, the URL

http:/www.exampleco.com/API/getpi would return the multiple of any number times pi sent to it.

API publishers provide application developers instructions for accessing and using the API from within the code on the computer in the form of libraries or allowing the application to request data across the Internet.

# **How Do MapQuest Location Services Work?**

With that background, it's time to explore briefly the use of asset location developer tools, which can answer the question "Where is it?" about any tracked asset, whether a car or user device.

For example, MapQuest provides an SDK that generates an alphanumeric identifier that becomes the key to tracking each asset. Every asset is reconciled to a location, which

can be updated continuously as the asset moves from place to place. The company also offers a set of plugins based on the Leaflet JavaScript libraries that add services such as route planning and live traffic monitoring to a map.

MapQuest's Location Services allow an application to maintain a database of information, including the current location of the asset (latitude/longitude), its speed, bearing, altitude and other variables that help keep tabs on its precise location. For whatever reason that an app user may need to know a device's location, developers can simply query MapQuest's database using the identifier to get the most recent location information. Furthermore, they can query the database for the location of all assets over a period of time to identify any trends that help improve business performance.

The question "Where is?" yields many data points delivered from MapQuest that can be applied within an application or service to improve top- and bottom-line business performance.

Getting started with an API is free. Typically, vendors offer comprehensive documentation and how-to guidance, along with free access to the API. MapQuest's developer tools are free up to 15,000 transactions per month to allow developers to work with and learn the system at no cost. Metered plans for production use are available on tiered plans and negotiated enterprise rates.



## **About BIA/Kelsey**



BIA/Kelsey is a market research and analyst firm that focuses on all things local. Local media is an increasingly dynamic area of ad spending, and is quickly evolving with emerging digital platforms like mobile, social and search.

Over the past three decades, BIA/Kelsey has been an authority on these developing technologies as well as their forbearers in traditional media, which continue to transform as they likewise compete for local ad dollars and consumer affinity.

Through a growing suite of products that includes research reports, articles, conferences, and client consulting, BIA/Kelsey analyzes the business, financial, social and technology trends affecting local media.

Readers, event attendees, partners and clients are given the inside track on critical data, analysis, and recommendations needed to grow and transform in a rapidly evolving marketing and advertising landscape. <a href="https://www.biakelsey.com">www.biakelsey.com</a>.

## **About BIA/Kelsey Sponsored Research**



BIA/Kelsey Sponsored Reports are commissioned by companies that wish to spotlight areas of coverage. BIA/Kelsey maintains full editorial control and applies longstanding standards of editorial practice and objective market analysis. If you'd like to sponsor coverage of any topics or to profile sectors of local media innovation, please contact <a href="mailto:sales@biakelsey.com">sales@biakelsey.com</a>.



## **About MapQuest**



MapQuest for Business powers thousands of businesses with location-enabled geospatial solutions. MapQuest's Location Services provide companies of any size with the means to increase efficiency and streamline processes, connect with customers, and ultimately deliver an exceptional user experience. MapQuest offers a variety of functional application programming interfaces (APIs), including asset tracking, geocoding services, mapping, directions and routing algorithms. For more information on Location Services that can be used for asset tracking, contact us at sales@mapquest.com.

#### **End Notes**

17

<sup>&</sup>lt;sup>1</sup> "Gartner Says Worldwide Supply Chain Management and Procurement Software Market Grew 10.8 percent in 2014," May 12, 2015. Accessed at <a href="http://www.gartner.com/newsroom/id/3050617">http://www.gartner.com/newsroom/id/3050617</a> on July 7, 2016.

ii Choudary, Sangeet Paul; Van Alstyne, Marshall; Parker, Geoffrey. "Platform Revolution: How Networked Markets Are Transforming the Economy — and How to Make Them Work for You," W.W. Norton & Co., March 28, 2016.

iii Steven Johnson: "Chance Favors the Connected Mind" (video), <a href="http://blog.biakelsev.com/index.php/2016/05/26/steven-johnson-chance-favors-the-connected-mind-video/">http://blog.biakelsev.com/index.php/2016/05/26/steven-johnson-chance-favors-the-connected-mind-video/</a>.

iv Meeker, Mary, "Internet Trends 2016 —Code Conference," June 1, 2016. <a href="http://www.kpcb.com/internet-trends">http://www.kpcb.com/internet-trends</a>.

<sup>&</sup>lt;sup>v</sup> "Reasons why marketers employ personalization worldwide as of June 2015," VentureBeat. Accessed on Statista.com on July 9, 2016.