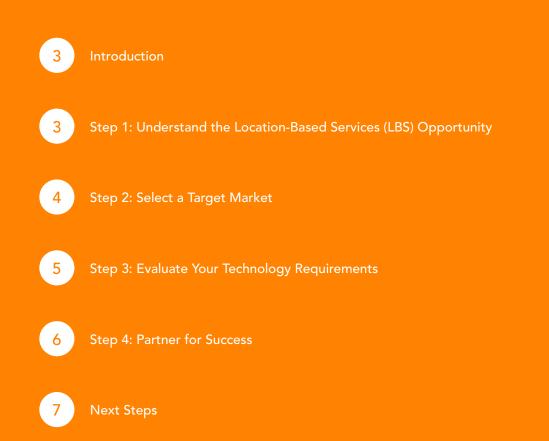# KORE

4 Essential Steps for Getting Started with Location-Based Services

Table of Contents

The market for Location-Based Services (LBS) represents a fast growing and multi-faceted opportunity for entrepreneurs and small businesses. The global LBS market is expected to grow at approximately 27% CAGR through 2022, when it is forecasted to be worth $60.1 billion. This growth is primarily driven by the need for organizations across various industries to improve operational efficiencies, adhere to regulatory policies, and enhance worker safety. Advances in IoT-enabled mobile technologies and wireless connectivity have resulted in an increasing number of LBS applications entering the market, and these numbers are indicative of the growing opportunity for location tracking and monitoring services. However, in order to successfully seize this opportunity, there are four essential steps you need to execute to launch an LBS solution.

Step 1: Understand the Location-Based Services (LBS) Opportunity

For end users, LBS solutions can deliver compelling benefits, by providing fleet operators, small business managers, or even construction foremen with real-time location information of their fleets, whether they be vehicles or other pieces of equipment. While location is of central importance, there are other equally valuable pieces of data that LBS applications can collect, interpret, and analyze regarding critical systems, components, or other assets. By offering LBS solutions, you can empower your customers to:

- **Increase productivity** - Know real-time location of vehicles and assets, utilize the most efficient routes, locate resources efficiently

- **Reduce operational costs** - Understand how vehicle or asset operational processes are affecting performance, implement preventative maintenance

- **Improve employee safety** - Keep employees safe with wearable devices, improve behaviors by monitoring risky driving or equipment operation practices

- **Enhance customer service** - Create happier end users with quicker, more efficient services

Purchasing LBS services is an easy decision for most fleet managers and operators because it quickly generates ROI via the aforementioned benefits. As organizations continue to recognize the benefits LBS can have on their bottom line, an increasing number of businesses are expected to begin adding the technology to their operational processes.

LBS offerings provide a promising path towards entrepreneurial success. LBS solutions have many facets that make it attractive for business owners including service-based, recurring revenue opportunities, flexible avenues for market penetration, and dynamic services for adjacent market penetration.

Step 2: Select a Target Market

There are a wide variety of fleets, individuals, and assets where location information is paramount, and many types of businesses across nearly all industries can benefit from LBS solutions. With that said, different organizations require different LBS functionalities and your business will be far more successful focusing on a targeted market. Some primary industries and use cases include:

FLEET

Fleet Management and Telematics – enhance fleet management capabilities by enabling real-time vehicle information for optimized scheduling and utilization, routing and navigation, fuel consumption, and vehicle repairs. Fleet operators benefit from vital insights into vehicle diagnostics and driver performance to effectively implement preventative maintenance and obtain regulatory HOS compliance.

LOGISTICS

Container Tracking and Monitoring – more effectively manage container shipments across various modes of transportation and enable visibility into real-time shipping container location to improve on-time delivery and ensure shipment security. Shipping and Logistics managers are also empowered to continuously monitor container conditions (i.e. temperature, humidity, etc.) to reduce waste.

HEALTHCARE

mPERS – empower elderly adults to maintain independence with wearable-based LBS solutions that allow users to send emergency alerts or notifications should any accidents occur, and provide peace of mind to loved ones and caregivers by delivering continuous access to a person's location. More robust solutions can also monitor patient biometrics to enable preventative care or self-care, and improve patient outcomes.

INDUSTRIAL

Inventory and Resource Tracking – improve operational efficiencies by enabling access to real-time location of raw input and final output inventory items, forklifts, pallets, or other pieces of equipment. Warehouse managers can better assess process effectiveness and increase productivity with more accurate insights into material availability.

CONSTRUCTION

Equipment Tracking and Monitoring – enhance construction equipment management capabilities with real-time information into equipment location and availability across large or dispersed construction sites for more efficient project planning and coordination. Construction foremen can also continuously monitor the performance of machinery to maintain equipment health and eliminate unplanned downtime.

AUTOMOTIVE

Stolen Vehicle Recovery (SVR) – add value for downstream customers and protect the security of drivers and their vehicles with stolen vehicle recovery (SVR) services that leverage location information to recover stolen property should it be subject to theft. Similarly, to fleet telematics, businesses' can also implement automotive telematics to provide insights into vehicle diagnostics for preventative maintenance implementation.

Once you have a clear understanding of what market segment you will be targeting with your LBS solution and the potential use cases among that segment, you can begin to consider what your LBS offering will provide and where your business will fit into the LBS ecosystem

Step 3: Evaluate Your Technology Requirements

The LBS industry has a large and diverse supply chain, and there are many types of businesses that operate within the space to deliver the various products and services that organizations require. From hardware manufacturers, to application developers, to service providers, to systems integrators, among others, there is no shortage of opportunities in this fast-growing market. At the most basic level, there are several key components that are needed to deploy an LBS offering:

- **Application** – the application will essentially represent your customers' interface into your LBS solution. There are myriad features and functionalities that your target market may desire, and the optimal choice will be dependent on their specific industry and use case. Examples of common features include localization, navigation and routing, geo-fencing, dispatching, vehicle or equipment diagnostics, driver behavior, and historical reporting – just to name a few.

- **Tracking Devices** – the devices used in your LBS solution collect the raw data that the application uses to translate into actionable, valuable information. Tracking devices today are incredibly complex and versatile, comprised of a set of modules and sensors that each have their own features, functions, advantages, and limitations. Specific configurations and capabilities are driven by use case, geographic location, and equipment type. Tracking device capabilities must be mapped to the desired application functionality and desired use case to ensure the solution performs as expected. For example, the optimal choice for an mPERS deployment will be much different than a fleet deployment, and even within the fleet space the optimal device choice will be dependent on vehicle or equipment size, tracking/monitoring requirements, etc.

- **Network Connectivity** – network connectivity provides your devices and applications a means of communication and facilitates data transfer among these components and other back-office systems as needed. In the LBS space, cellular connectivity is the most commonly used technology due to its nearly ubiquitous availability and ability to connect geographically dispersed assets. With that said, there are still a number of cellular options that must be considered against application and regional requirements.

With each of these components comes varying levels of development and integration and it is critical for organizations to be cognizant of their core competencies and their ability to support any combination of these technologies. Regardless of the target market and product offering you choose to pursue, a critical part of creating an effective business is identifying and engaging quality partners within your value chain. Depending on your organizations' strengths and weaknesses, there are IoT and LBS partners that can fill internal resource gaps to deliver solutions as robust as comprehensive LBS packages complete with all the aforementioned components, or as basic as tracking device distribution. Selecting the right partner and the right technology mix will be largely dependent on you intended use case, internal resource availability, and desired business goals.

Step 4: Partner for Success

When selecting an LBS partner to help get your solution to market, the first step involves an evaluation of which features and functionalities you will need for each key component to best serve your target market. From there, you must determine a comprehensive strategy that provides a framework for solution development and provides guidance as to which components will be outsourced and which will be developed independently. These decisions will ultimately dictate how large of a role your LBS partner(s) will play in the deployment and operational management of your solution. The following represent some key questions and capabilities you may want to look for in an LBS partner:

- **Bundled Solutions** – does the partner provide all of the key components needed for your LBS solution? Can they deliver them in a "bundled", pre-integrated manner or are they single-point offerings?

- **White-Label Branding** – can the partner white-label its services to contribute to your business' brand identity?

- **Security** – are they partner's systems secure, end-to-end? Have the implemented best security practices on all layers of their solution (device, communications, application)?

- **API Availability** – are API's available for ease of integration into existing applications and back-office systems?

- **Infrastructure** – how does the partner deploy their solution? Do they offer cloud-based models? On-premises hosting models? Both?

- **Professional Services** – what level of professional services can your partner deliver? Can they assist with device integration? Do they have the ability to create new, custom features to meet your business requirements?

- **Mobile Applications** – does the partner's solution come with mobile applications that enable you and your end users to manage connected vehicles or other pieces of equipment regardless of location?

While these points provide some very high level information regarding important LBS partner qualities, the technologies can become highly complex and will likely require communication among your technical staff and the potential partners' technical staff to ensure the partners' capabilities meet your business requirements.

Next Steps

LBS solutions provide significant opportunities for organizations across industries to improve operational efficiencies as well as enable revenue growth potential for small businesses and entrepreneurs. To fully capitalize on the emerging opportunity, businesses need to first understand their target market, the appropriate technical requirements, and the key considerations for selecting a trusted partner. With the right strategy and plan in place, organizations will be well positioned to leverage the power of location-based services to improve business performance and maximize their return on IoT investments.

About KORE

KORE is a pioneering leader and trusted advisor that helps deliver transformative business performance from IoT solutions. We help customer organisations of all sizes navigate the complexities of IoT and improve execution, so they can focus on operational and business results. Our IoT expertise and experience, global reach, independence, and deployment agility accelerate and materially improve our customers' return on their IoT investments.

Looking for more information on how to add LBS solutions to your portfolio? Reach out to KORE today to learn how we can simplify and accelerate LBS adoption for your organization.