

Challenges of LBS Market Analysis: Current Market Description

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Process of Forecasting

Assumptions and Inputs:

- The environment
- The action taken or planed
- Underlying trends and discontinuities

Modeling:

- Judgmental
- Mathematical
- Statistical

Forecasts and Future:

- New business models
- Market size
- ...

The environment

- Location Based Services are the delivery of information services where the content of services is tailored to location of the user.

The term *location-based services (LBS)* is a recent concept that denotes applications integrating geographic location (i.e., spatial coordinates) with the general notion of services. Examples of such applications include emergency services, car navigation systems, tourist tour planning, or “yellow maps” (combination of yellow pages and maps) information delivery.



Definition - What does *Location Based Services (LBS)* mean?

Location based services (LBS) are services offered through a mobile phone and take into account the device's geographical location. LBS typically provide information or entertainment. Because LBS are largely dependent on the mobile user's location, the primary objective of the service provider's system is to determine where the user is. There are many techniques to achieve this.

Some of the most common LBS applications include local news, directions, points of interest, directory assistance, fleet management, emergency, asset tracking, location-sensitive building, and local advertisement.



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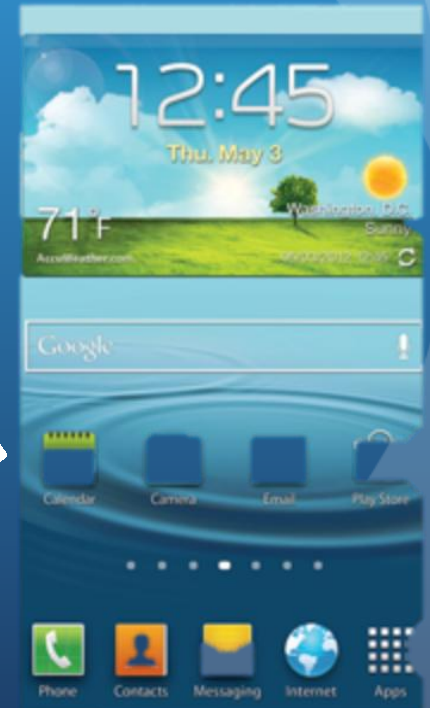
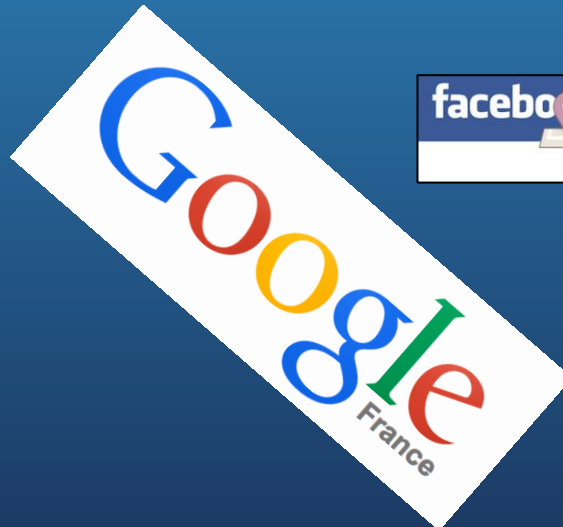
Article [Talk](#)

Location-based service

From Wikipedia, the free encyclopedia

Location-based services (LBS) are a general class of computer program-level services that use [location](#) data to control features. As such LBS is an [information service](#) and has a number of uses in [social networking](#) today as an entertainment service, which is accessible with [mobile devices](#) through the [mobile network](#) and which uses information on the geographical position of the mobile device. This has become more and more important with the expansion of the smartphone and tablet markets as well.^{[1][2][3][4]}

Location Enabled Services



Environment

LBS Market Worth \$39.87 Billion by 2019

By GPS World staff - Posted on 11 Apr 2014 in Latest News & LBS/Wireless News.

A newly issued report by MarketsandMarkets focuses on growth in the location-based services market, and says it will be worth \$39.87 billion by 2019. The report, "Location Based Services (LBS)... [Read more»](#)



A Glowing Report Doth Not a Golden Future Make

By Alan Cameron - Posted on 27 Nov 2013 in GNSS & GNSS Opinions & Newsletter Editorials.

The tech press and broad public media have both made much ado about a November market report from the European GNSS Agency (GSA). Most accounts have focused on a GSA... [Read more»](#)

Berg Insight: LBS Revenues in Europe to reach €825 million by 2017

By GPS World staff - Posted on 11 Feb 2013 in Latest News & LBS/Wireless News & Social Networking & Advertising.

According to a new research report by Berg Insight, mobile location-based service (LBS) revenues in Europe are forecast to grow from €325 million in 2012 at a compound annual growth... [Read more»](#)

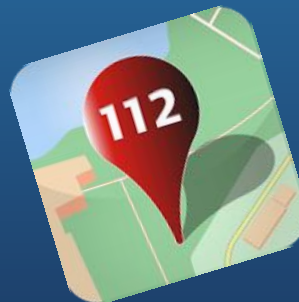
Current Markets

LBS market report	Revenue/market size (M USD)	The most growing segment / Main revenue generator	CAGR	LBS subscriber	By
Berg Insight	4000	LBS Advertisement	16.1 (Europe)	20%	2018
Frost & Sullivan Analysis (US)	2100	Navigation	25 (USA)	-	2017
Strategy Analytics	6000	Location Enabled Advertising	-	50%	2017
ABI Research	7800	Navigation	20.1	-	2017

Current Markets

LBS market report	Revenue/market size (M USD)	The most growing segment / Main revenue generator	CAGR	LBS subscriber	By
Pew Research	-	LB Info	30.5	75%	2014
Marketsand Markets	39870	Navigation	-	-	2019
Pyramid Research	10300	Navigation	28	-	2015
Gartner Group	13500 (20 LBA)	Navigation	-	15%	2015
GSA	70000	Data	40%	-	2022

Actions taken, Challenges and plans



10 years of TomTom GO and 13 million marriages saved

Home / Car Insurance Advice

LBS Applications Segmentation

Vertical/Segment	Application examples
Location-Based Information Retrieval	<ul style="list-style-type: none">• Location-based NEWS• Location-Based Q&A (Query)• Proximity Searching• Tourist Guide• City Sightseeing• Traffic, Weather and Transportation Info.
Safety and Security	<ul style="list-style-type: none">• Emergency Services• Emergency Units Allocation• Emergency Alert Services• Ambient Assisted Living• Security Surveillance

LBS Requirements

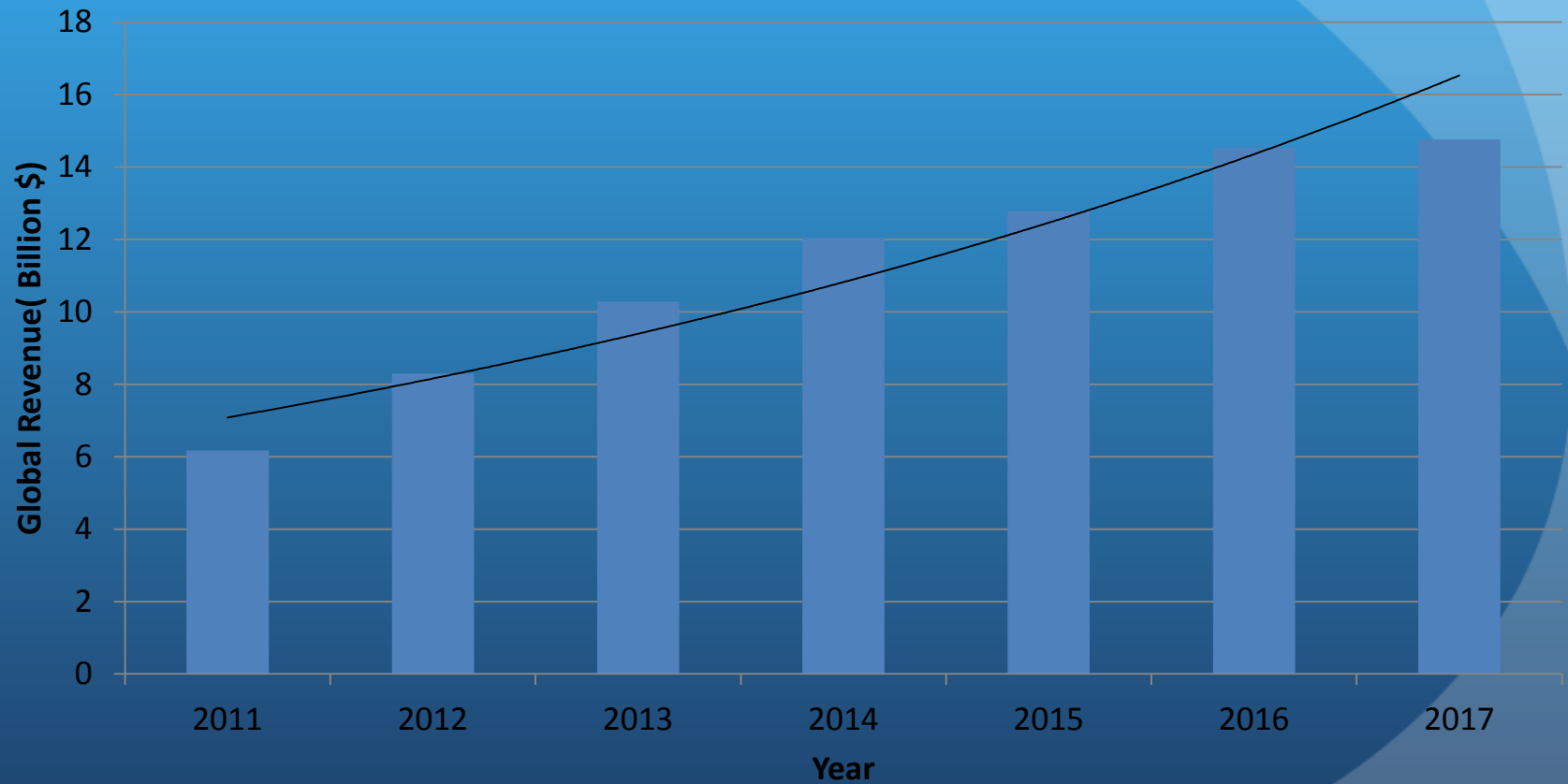
LBS Segment	Requirement
Navigation and Tracking	<ul style="list-style-type: none">- Very high availability (seamless indoors, outdoors)- Response in real-time or few seconds (in general applications)- Accuracy of few meters or less- Very high reliability and continuity- Medium to low power consumption- Reasonable or cheap price- High privacy preserving
Marketing	<ul style="list-style-type: none">- Medium availability- Response in few minutes- Accuracy in the order of hundreds of meters- Medium reliability and continuity- Very low power consumption- Almost free or very cheap- Medium privacy preserving
Entertainment	<ul style="list-style-type: none">- Medium to high availability (seamless indoors and outdoors)- Response in real-time or few seconds- Accuracy in the order of tens of meter- High reliability and continuity- Low power consumption- Reasonable or cheap price- Medium privacy preserving

LBS Requirements

LBS Segment	Requirement
Location-Based Information Retrieval	<ul style="list-style-type: none">- Medium availability- Response in real-time or few seconds- Accuracy from a few meters (for some applications such as tourist guide and proximity search) to hundreds of meters (for news and weather)- High reliability and continuity- Low power consumption- Reasonable or cheap price- Medium Privacy preserving (depending on the application)
Safety and Security	<ul style="list-style-type: none">- Very high availability (seamless indoors and outdoors)- Response in real-time or few seconds- Accuracy of tens of meters or lower- Very high reliability and continuity- Low power consumption- Reasonable or cheap price- Medium or low privacy preserving

Future Market for LBS

Global Revenue



Future Market for LBS



Acknowledgement

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Thanks for your attention!

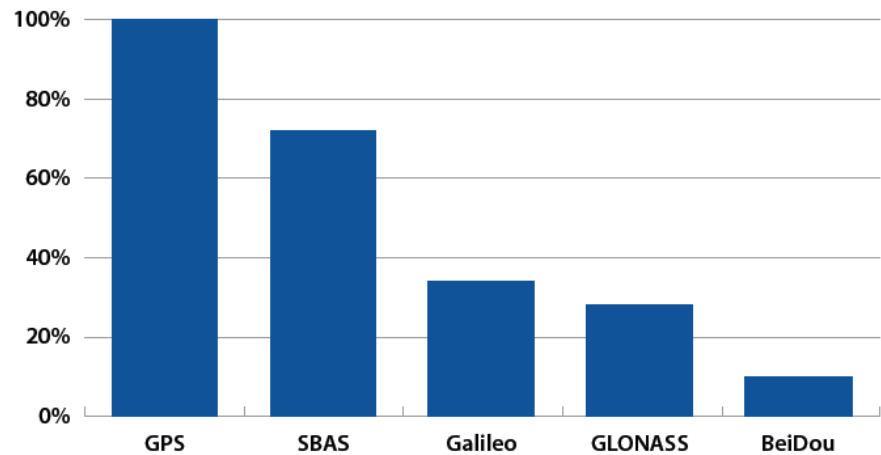
E.g. Galileo Financial success?

- Total cost of Galileo, including development and validation (€2.4 billion), deployment (€3.4 billion) and also 20 years of support, operating costs (20 * €800 million p.a.) and deployment phase of EGNOS (€1.1 billion) is €23 billion
- The global annual GNSS core revenue (such as shipment of GNSS receivers and devices) of €110 billion in 2022 => Galileo can have an annual market of €5.3 billion.
- The global annual revenue from enabled services and products of GNSS will get up to €240 billion by 2022 => Galileo can have a Europe-wide market of about €30 billion.
- The technical advances that come about as a result of research and development investments in the space industry are transferred to firms in other sectors in the form of “spill-over” effect, which is surprisingly large; the social return of around 70% in long term is expected. If only development and deployment phases’ costs (€2.4 billion + €3.4 billion) are considered as R&D investments, then an increase of €4 billion in long term in other sectors (such as health, transport, computer science) is expected.
- €460 Billion annually by will be saving in “time” and “fuel” by 2020 as a result of use of personal location data captured by either personal smartphones or In-Car navigation systems.
- 6-7% of Europe GDP, which is estimated about €800 billion, currently relies on satellite navigation signals provided by the US GPS. This dependency is increasing since more web and mobile transactions, services and applications have become commonly available.
- ...

Galileo

- Accuracy
- Availability
- Civil-based
- ...

GNSS capability of LBS chipsets*



Installed base of GNSS devices by region

